Final x-ray revision





TRAUMATOLOGY OF UPPER LIMB



SHOULDER

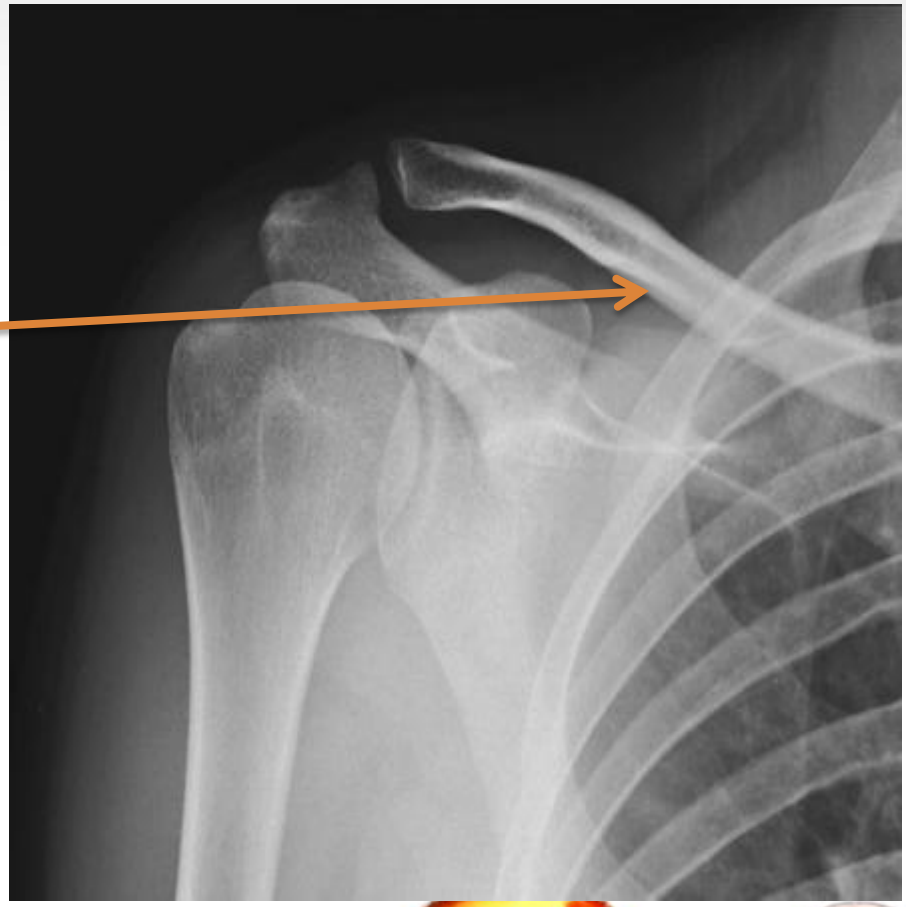




Normal shoulder joint

اول ما تلاقي أدامك سبوت للكتف
لازم نشوف ٥ حاجات عشان مافييش حاجة
تعدي مننا ان شاء الله

1- check clavicle

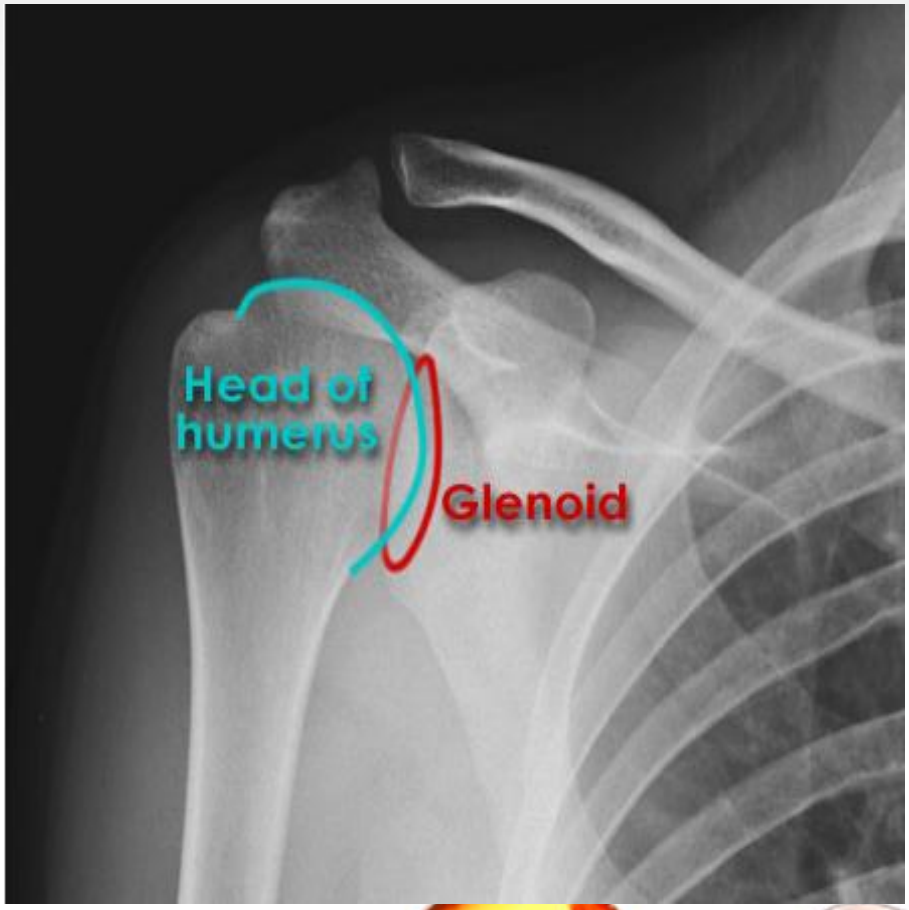




Normal shoulder joint

اول ما تلاقي أدامك سبوت للكتف
لازم نشوف ٥ حاجات عشان مافييش حاجة
تعدي مننا ان شاء الله

1- check clavicle
2- relation of humeral head to glenoid

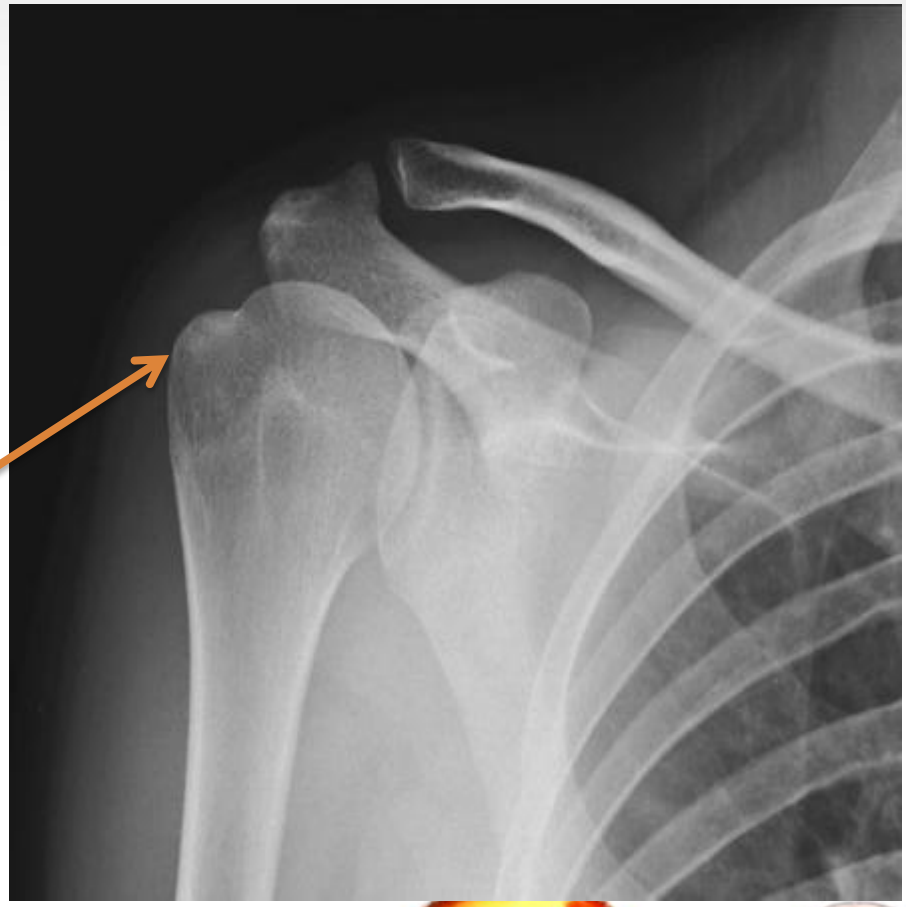




Normal shoulder joint

اول ما تلاقي أدامك سبوت للكتف
لازم نشوف ٥ حاجات عشان مافييش حاجة
تعدي مننا ان شاء الله

1- check clavicle
2- relation of humeral head to glenoid
3- check greater tuberosity of humerus

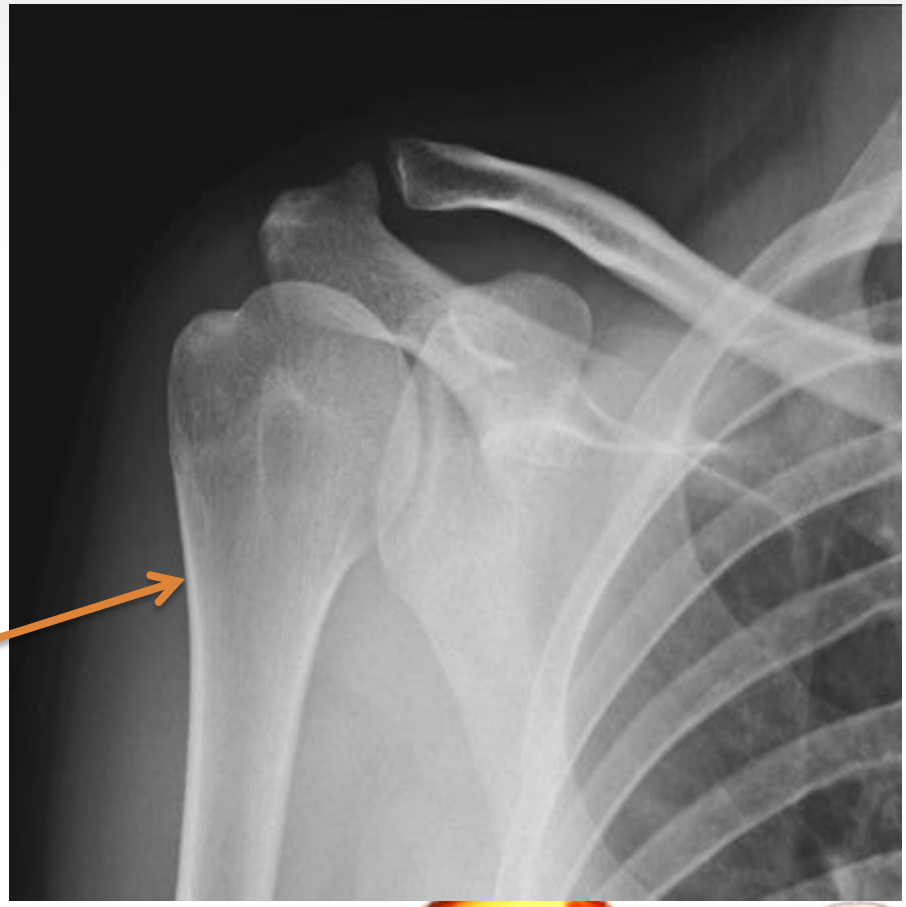




Normal shoulder joint

اول ما تلاقي أدامك سبوت للكتف
لازم نشوف ٥ حاجات عشان مافييش حاجة
تعدي مننا ان شاء الله

1- check clavicle
2- relation of humeral head to glenoid
3- check greater tuberosity of humerus
4- check surgical neck of humerus





Normal shoulder joint

اول ما تلاقي أدامك سبوت للكتف
لازم نشوف ٥ حاجات عشان مافييش حاجة
تعدي مننا ان شاء الله

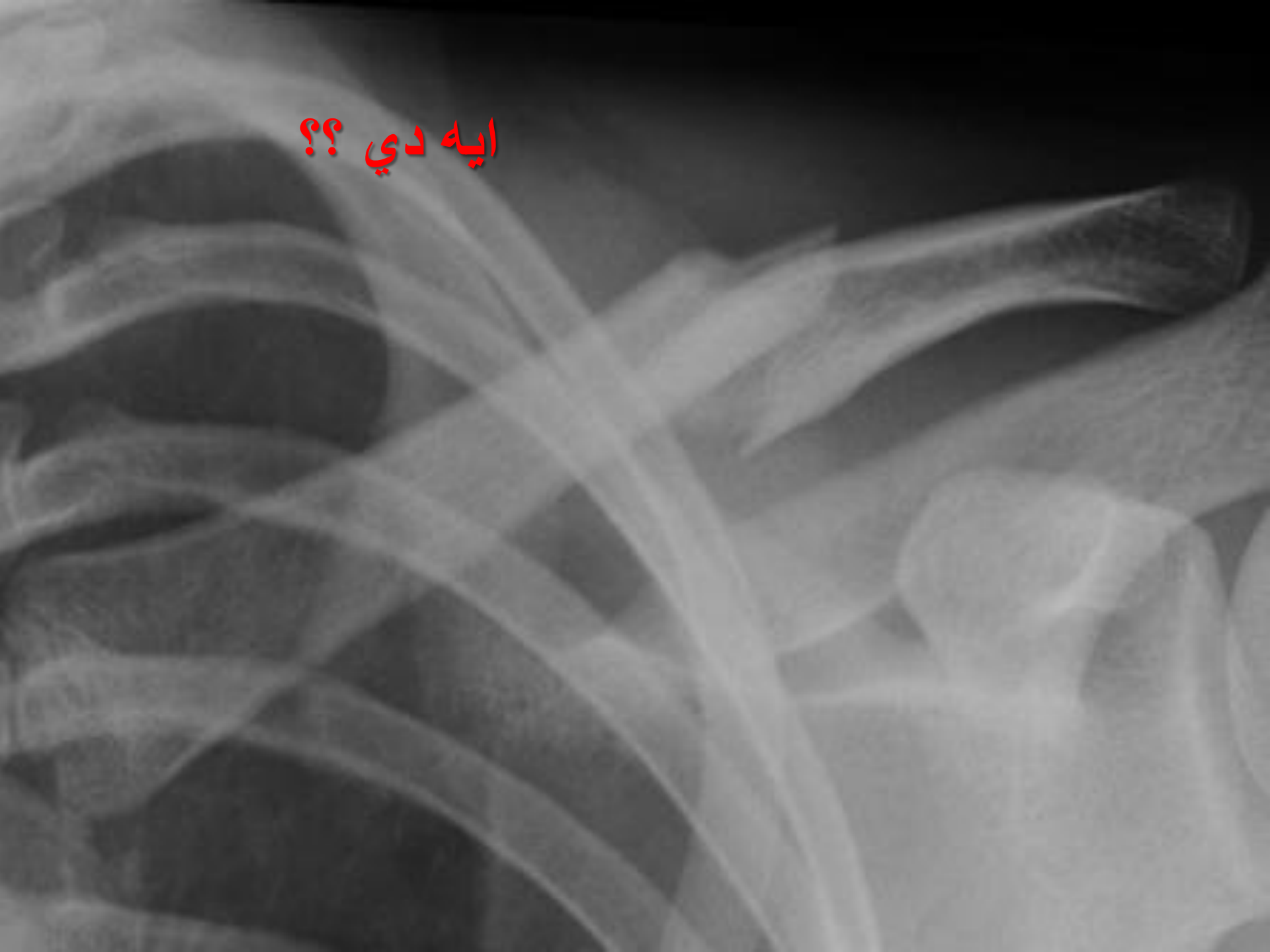
1- check clavicle
2- relation of humeral head to glenoid
3- check greater tuberosity of humerus
4- check surgical neck of humerus
5- check shaft of humerus

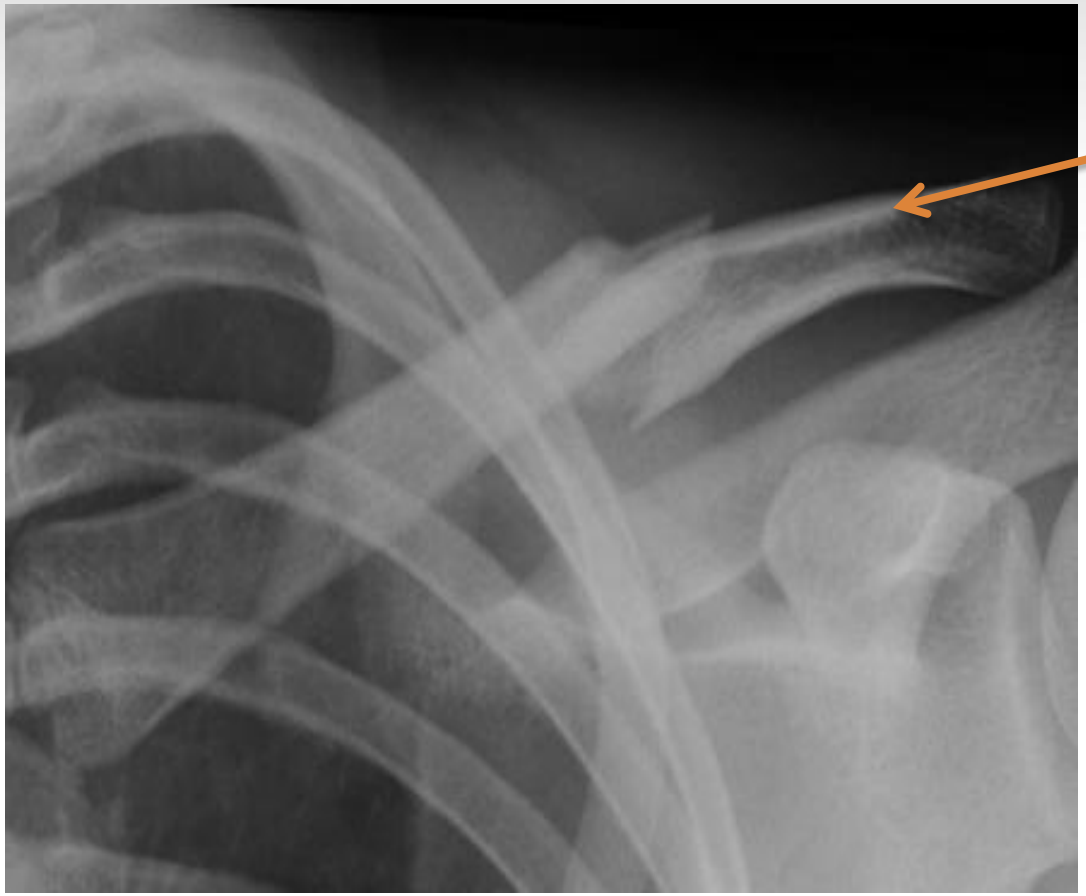




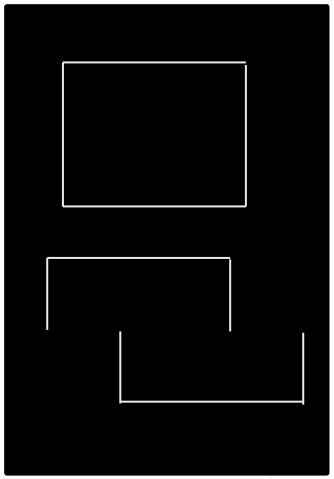
Normal shoulder joint in children (epiphyseal plates)



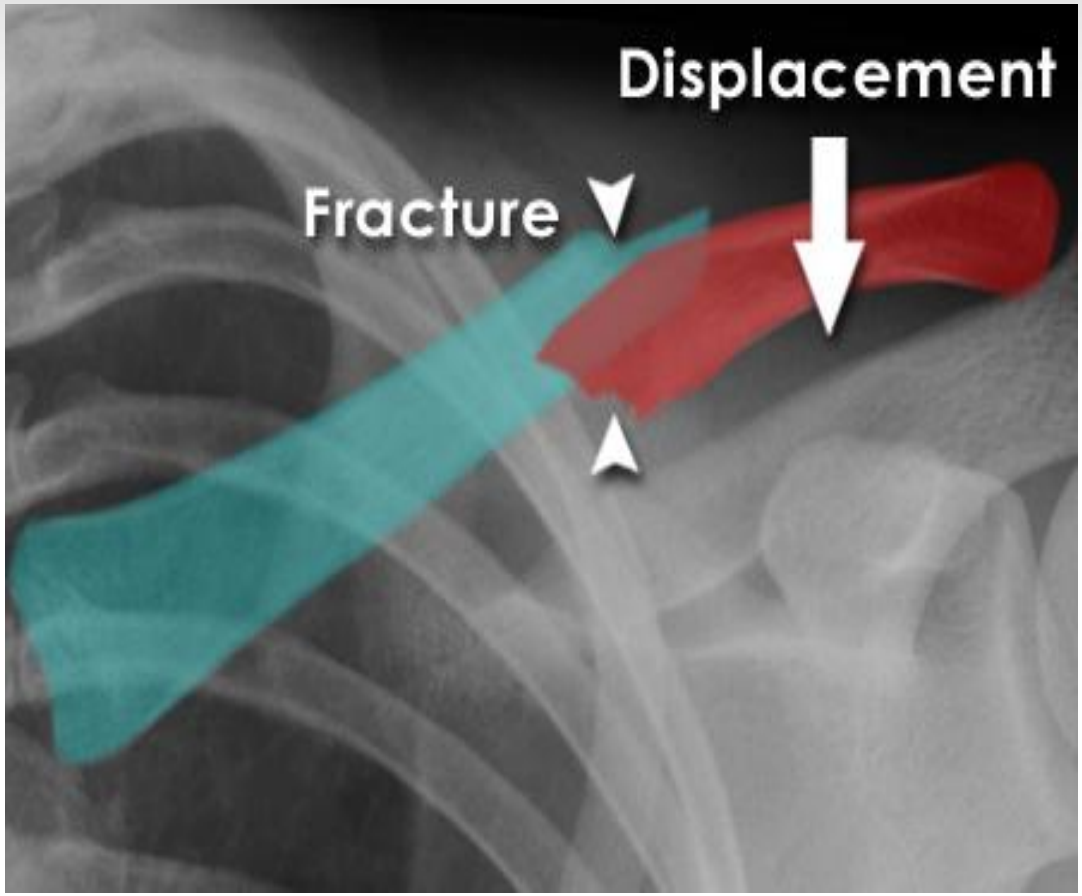

ايه دي ؟؟



الأساس عندنا في أي كسر اننا نتابع الخط الابيض اللي محوط العضمة اللي هوا ال
bone cortex
و اول ما يتقطع مننا يبقى احنا وصلنا للكسر





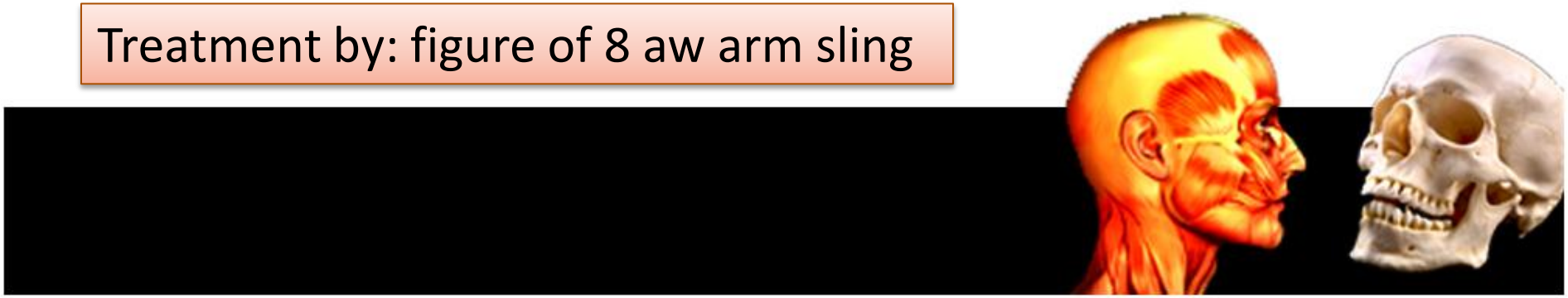


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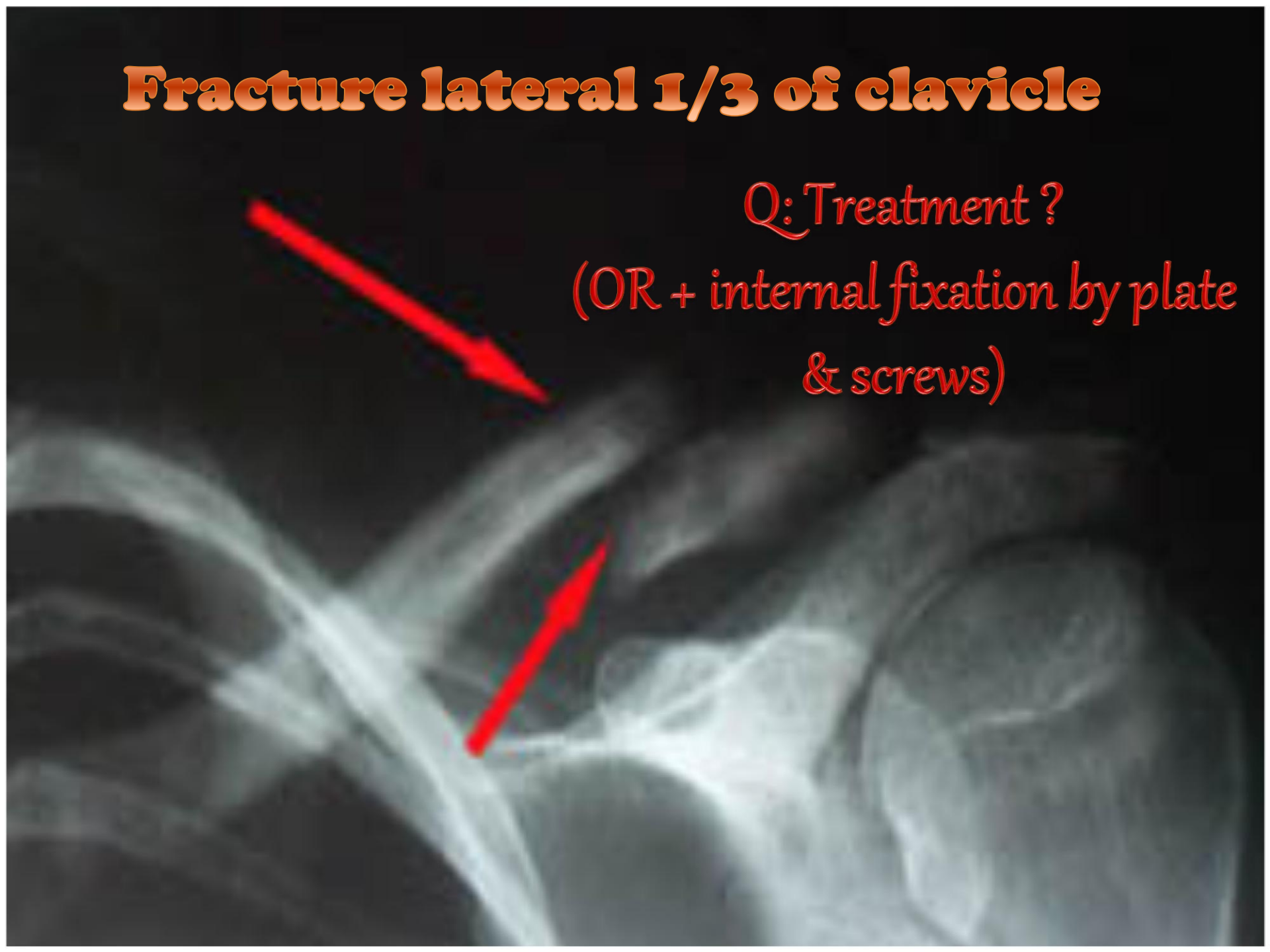
yeb2a da keda fracture of middle third of clavicle

و مشكلته ان الدراع بيشد الحتة اللي برا (الحمرا) ل تحت حتى أثناء ما الكتف متثبت ... ف في أغلب الاحيان بيحصل
malunion

Treatment by: figure of 8 aw arm sling

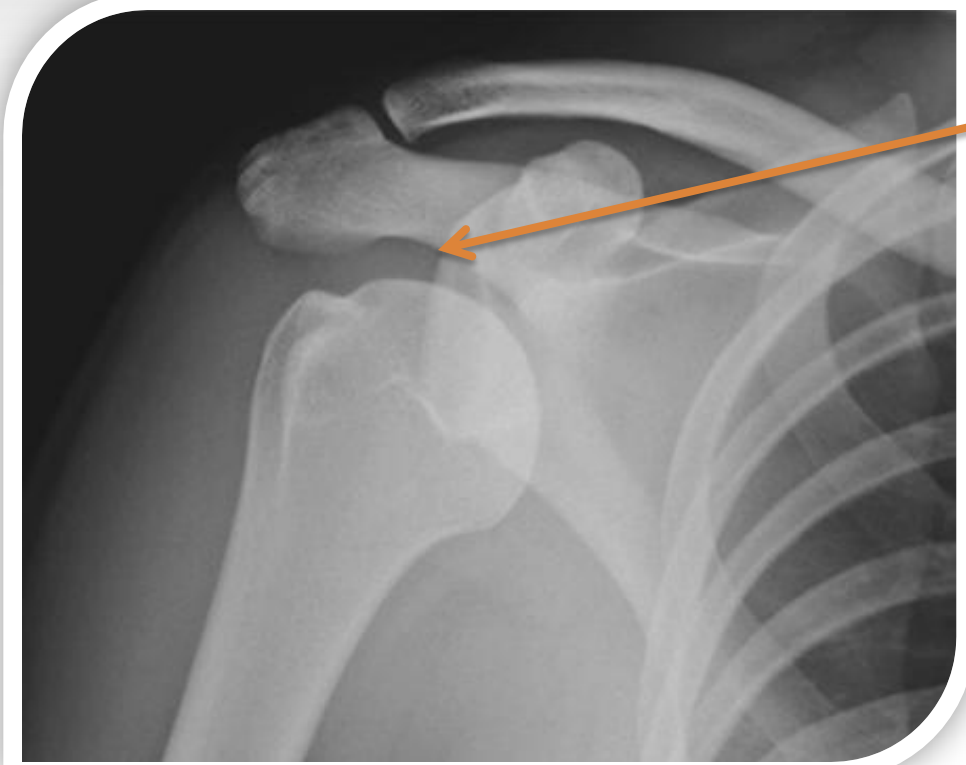


Fracture lateral 1/3 of clavicle

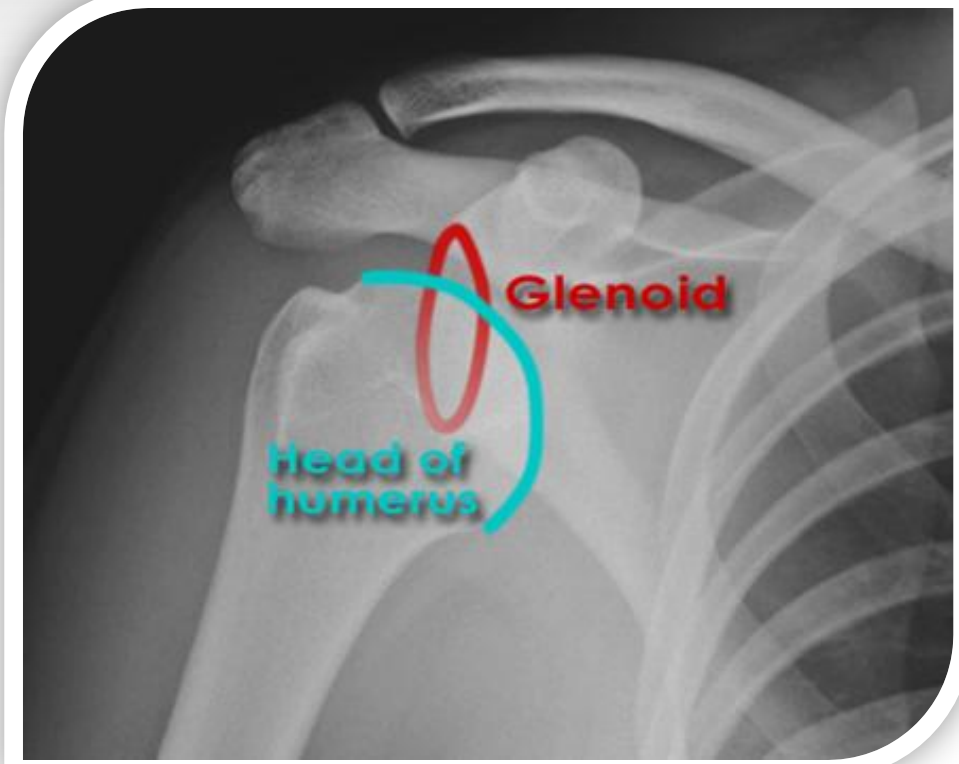



ايه دي ؟؟

بصينا على كله ما لقيناش اي كسور
بس أخدنا بالنا ان هنا في فراغ كبير حبتين







بصينا على كله ما لقيناش اي كسور
بس أخدنا بالنا ان هنا في فراغ كبير حبتين

w kaman el head of humerus doesn't fit inside the glenoid cavity

قشطة يبقى دي

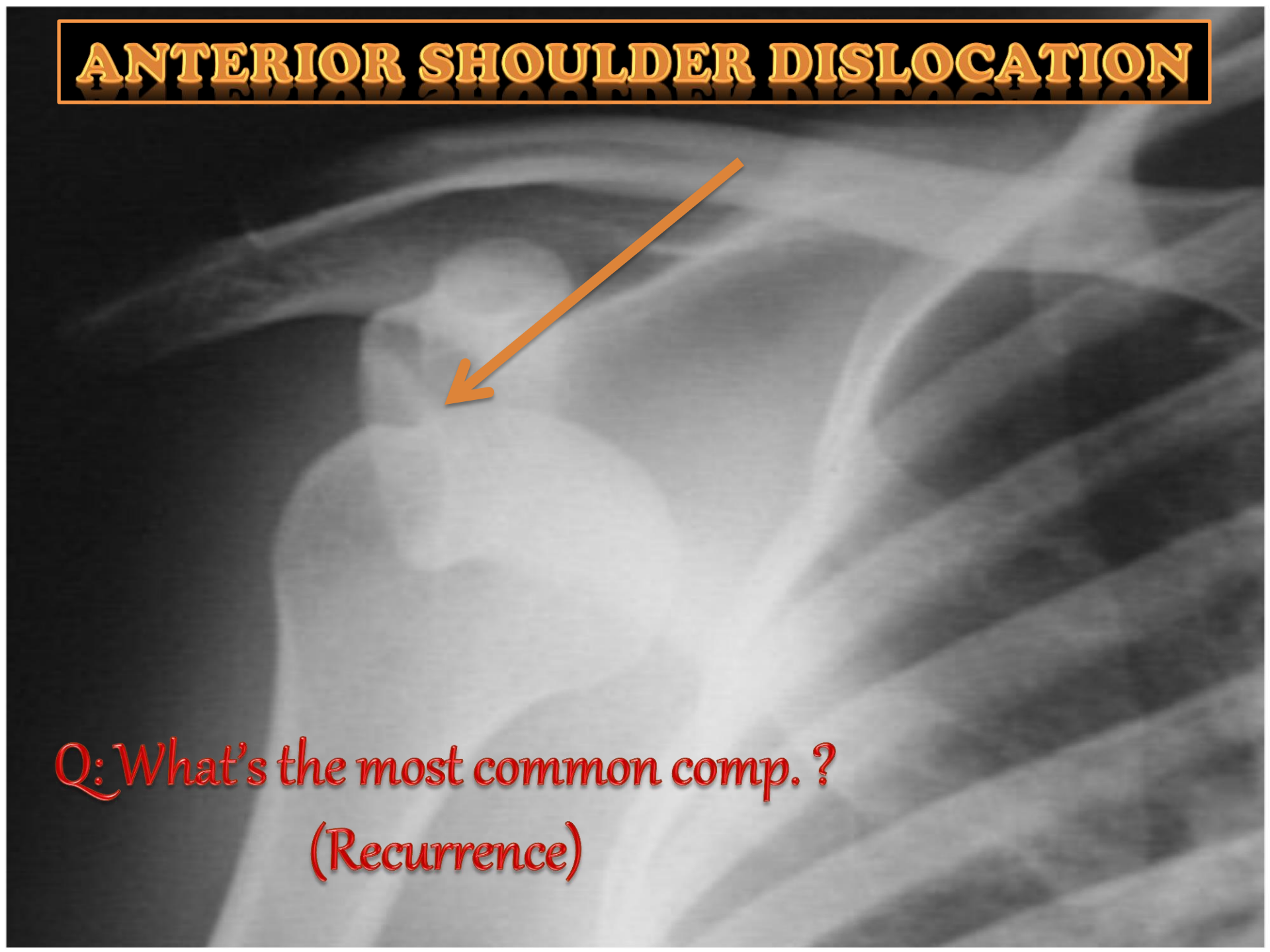
anterior shoulder dislocation

w da el most common dislocation in the body

N.B. el no3 da subcoracoid



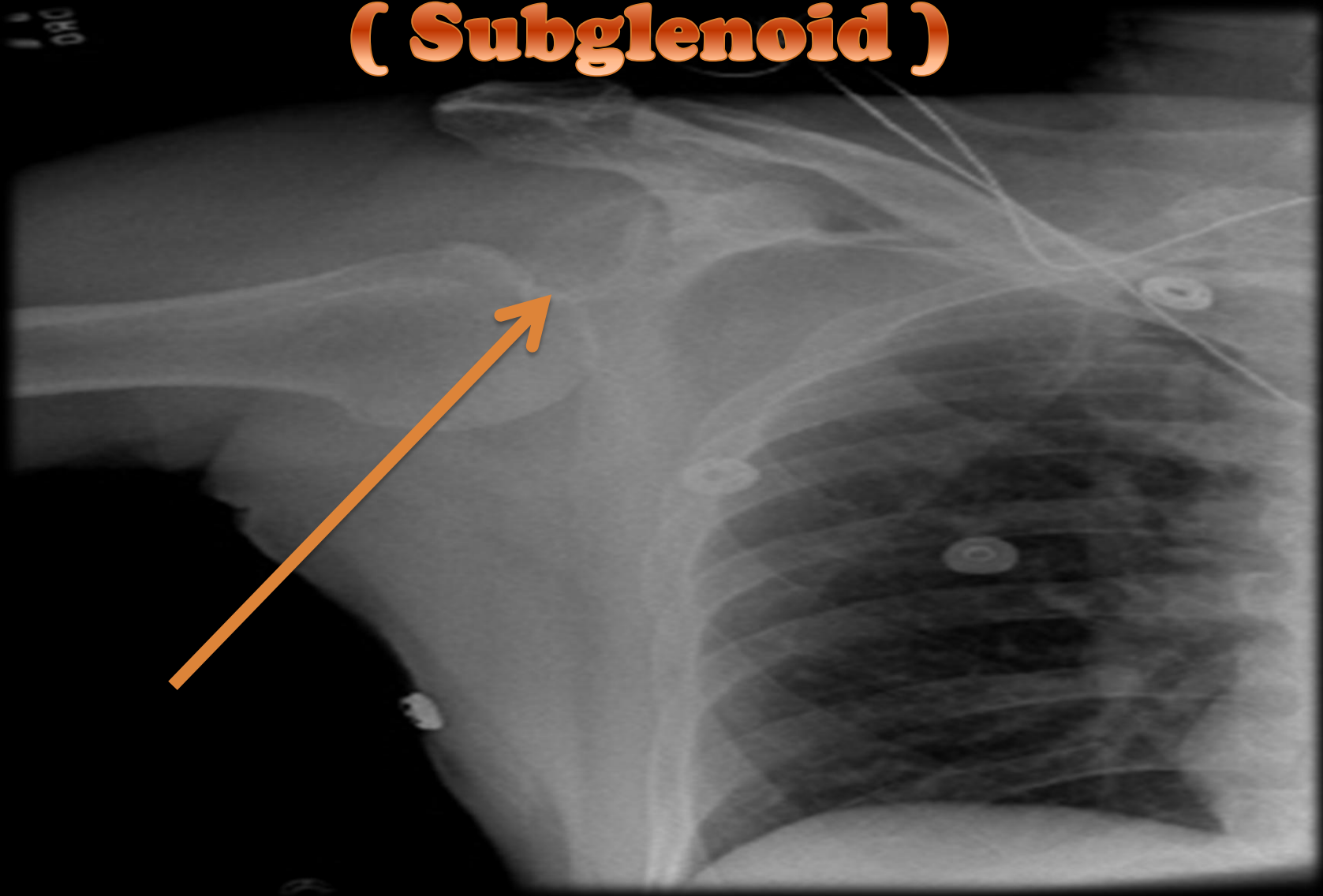
ANTERIOR SHOULDER DISLOCATION



Q: What's the most common comp. ?

(Recurrence)

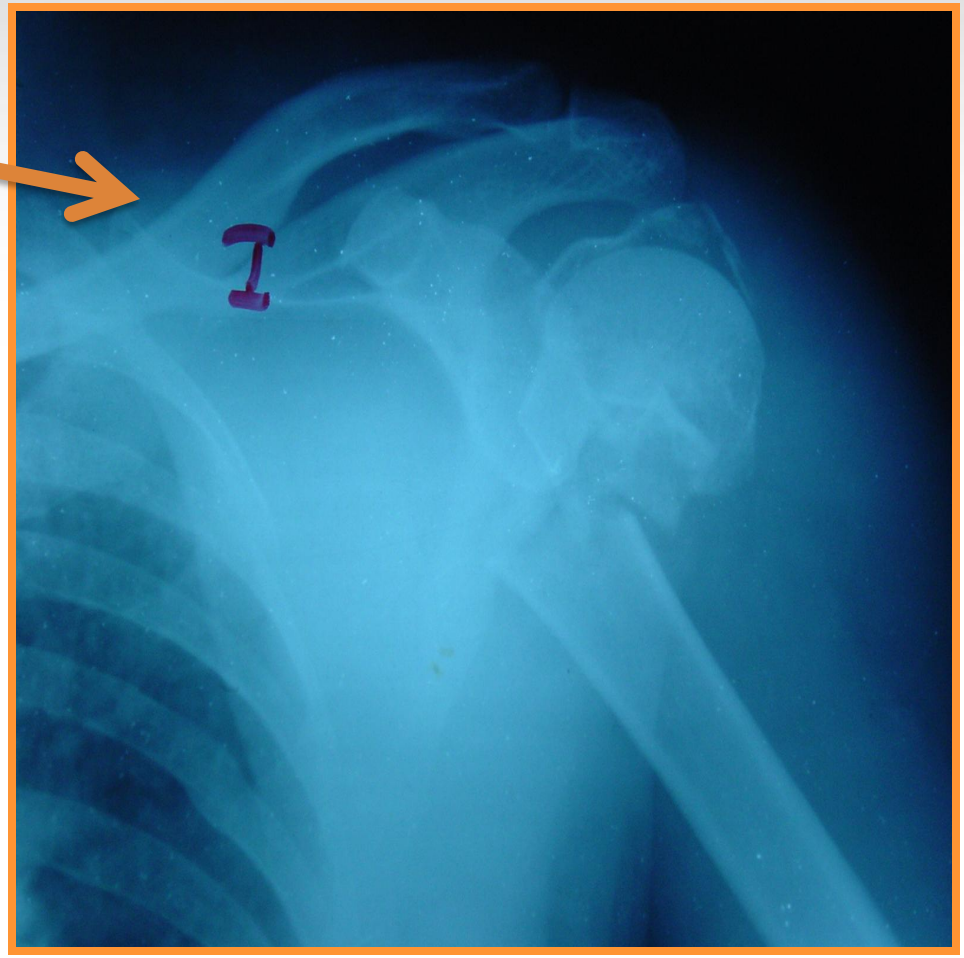
Anterior shoulder dislocation (Subglenoid)




Loss of normal contour
(compare to opposite side)


I
ايه دي ؟؟

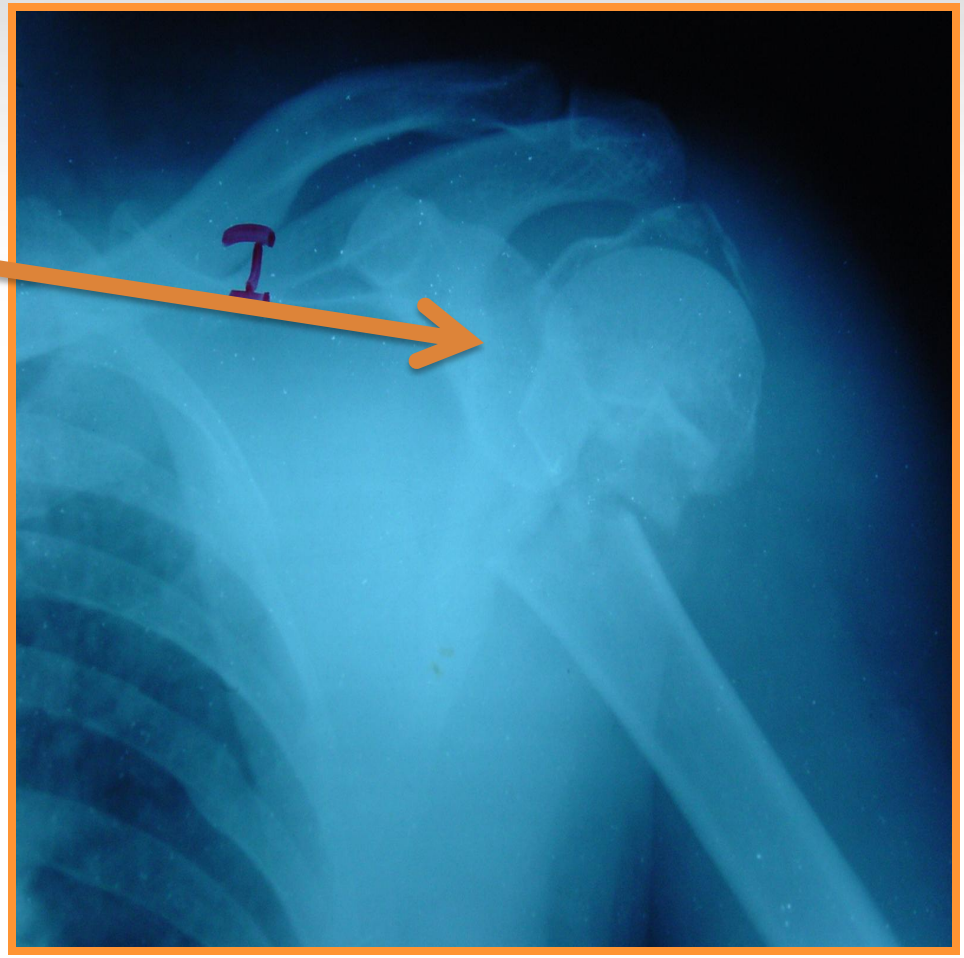
el clavicle tmam





el clavicle tmam

el head fel glenoid tmam





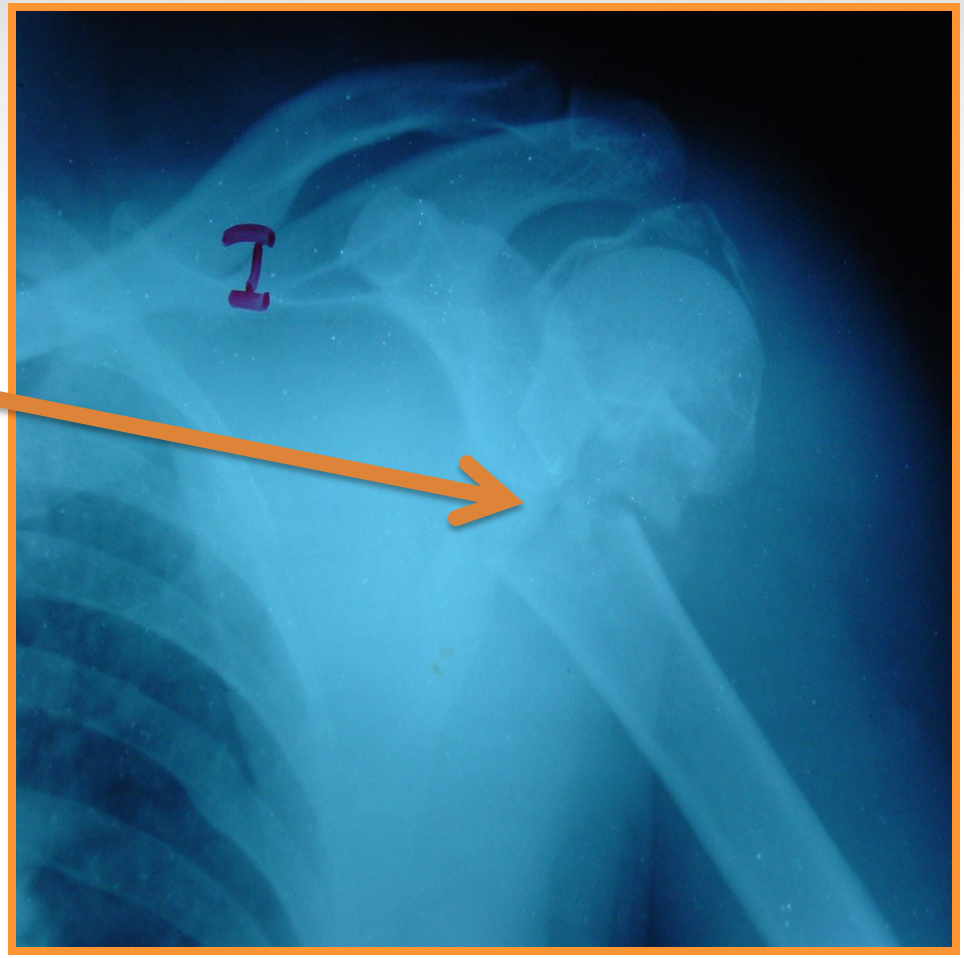
el clavicle tmam

el head fel glenoid tmam

opaaaa de el neck maksoora

yeb2a de

Fracture of Surgical Neck of humerus





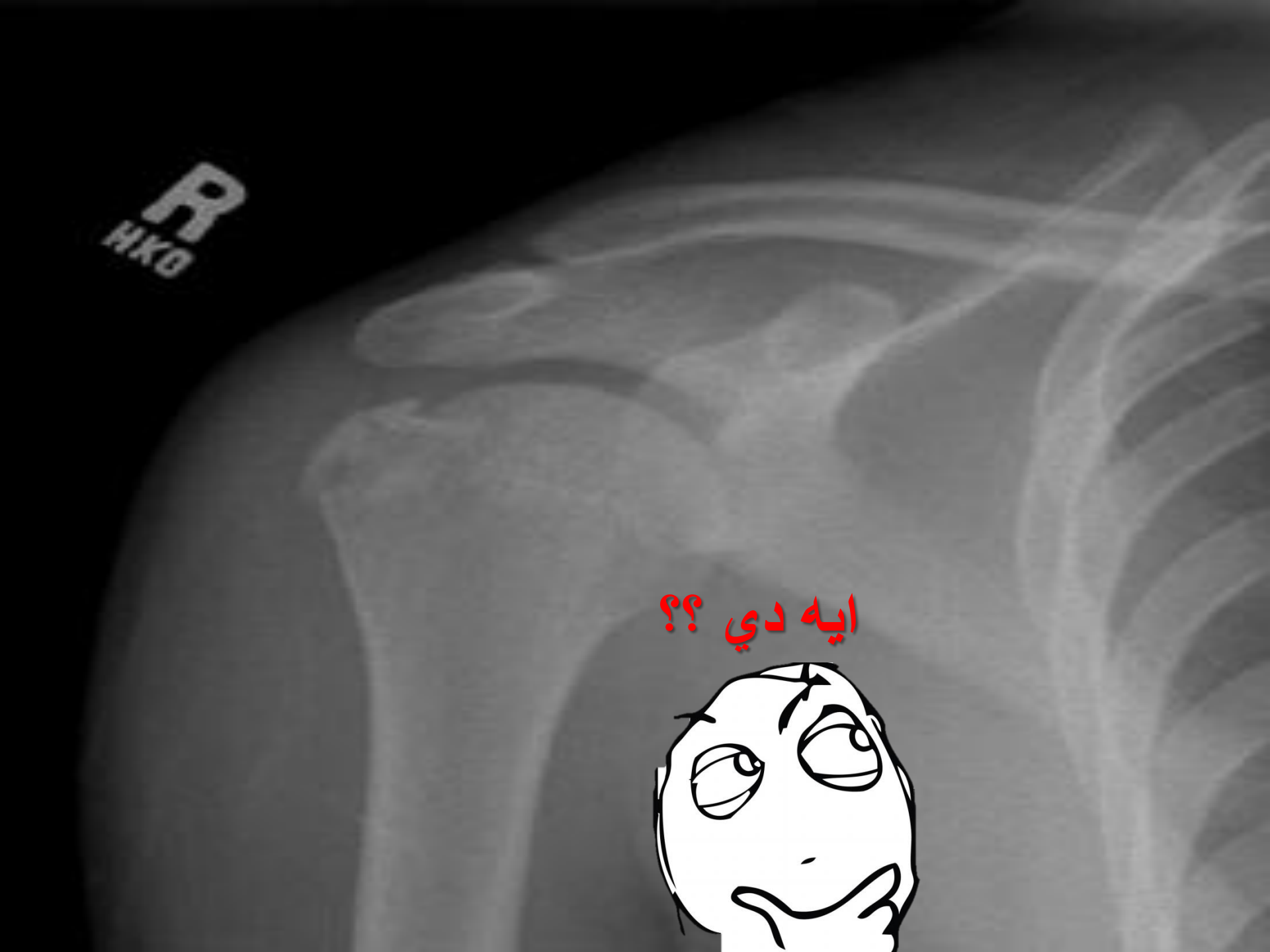
Fracture dislocation of surgical neck humerus



Q: Treatment ?
(CR & k-wires)

Fracture surgical neck humerus



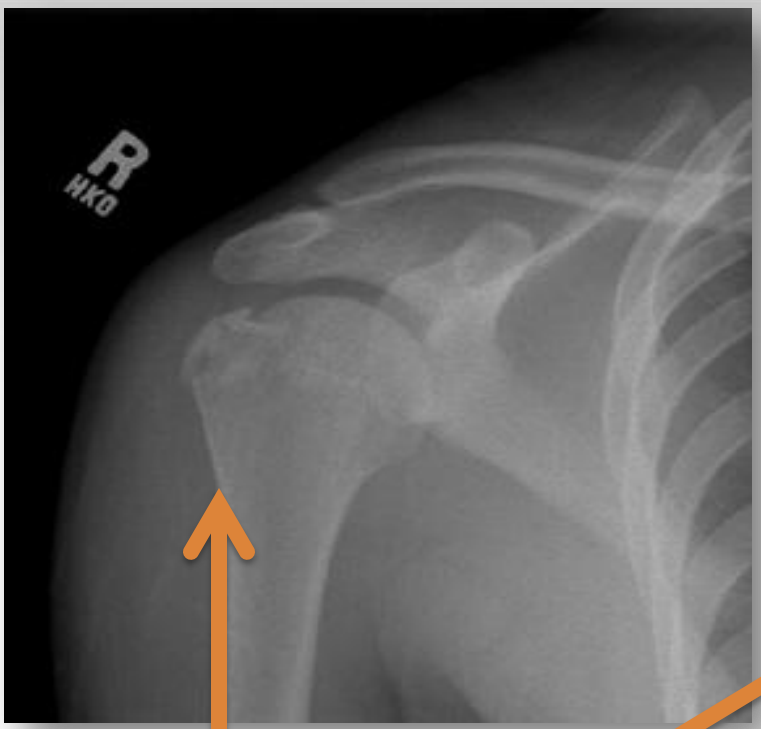

R
HKD
ايه دي ؟؟

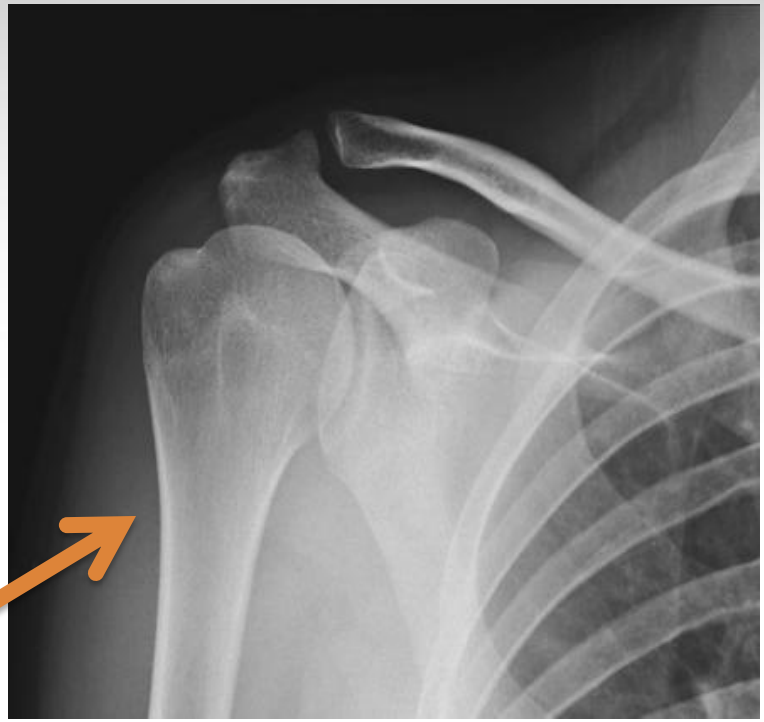




السبوت دي فعلا صعبة بس لو مشيت بالخطوات اللي قلنا عليها ان شاء الله مش هتغلط

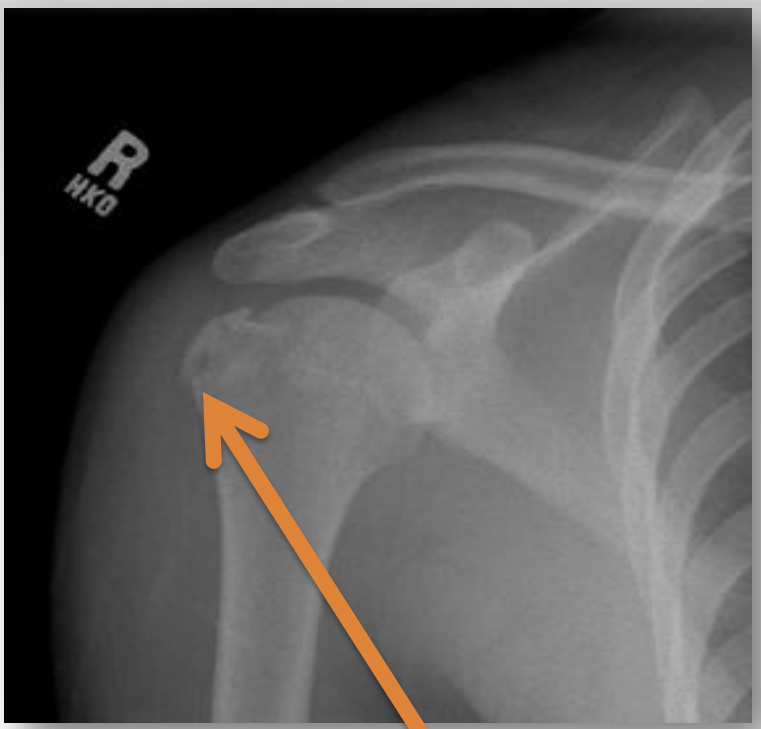


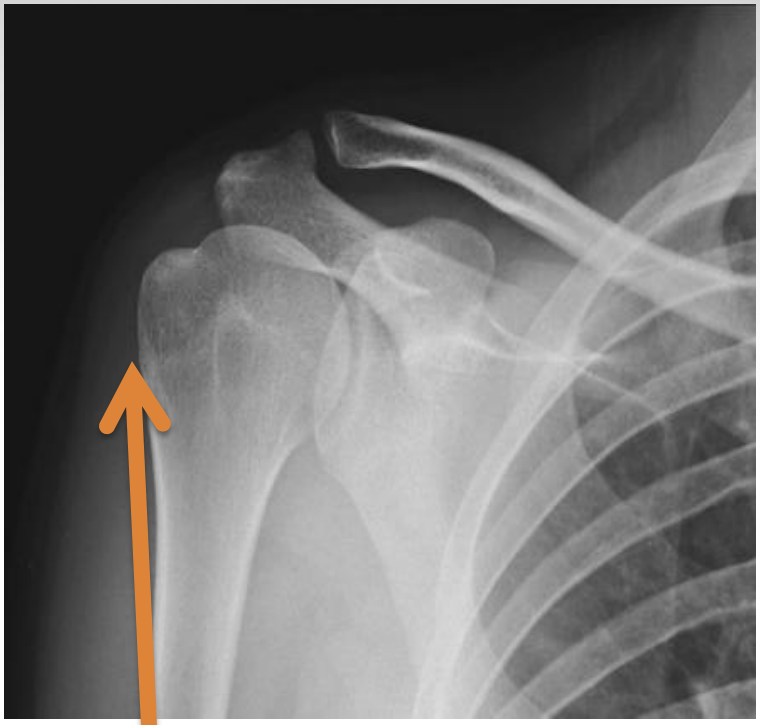




السبوت دي فعلا صعبة بس لو مشيت بالخطوات اللي قلنا عليها ان شاء الله مش هتغلط
نمشي بخطواتنا هنلاقي كله تمام بس عايزك تمشي على الخط الأبيض هنا و امشي عليه هنا و قوللي
لو حسيت ب فرق ؟

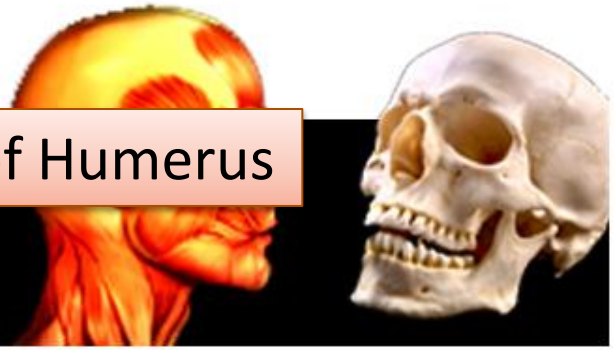




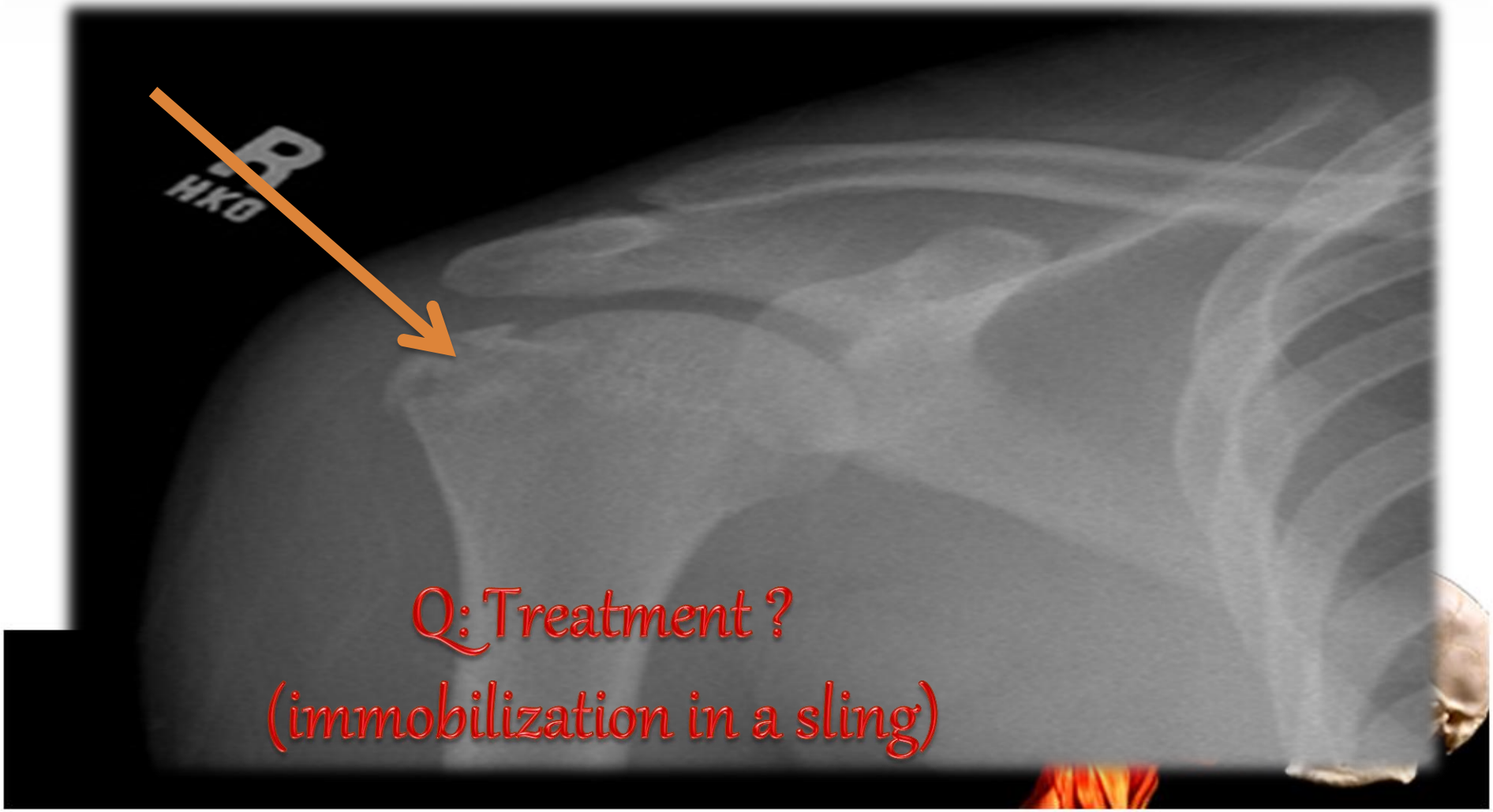


السبوت دي فعلا صعبة بس لو مشيت بالخطوات اللي قلنا عليها ان شاء الله مش هتغلط
نمشي بخطواتنا هنلاقي كله تمام بس عايز تمشي على الخط الأبيض هنا و امشي عليه هنا و قوللي لو حسيت ب فرق ؟
هنلاقي ال greater tuberosity هنا ناعمة و سلسلة ... انما هنا هنحس ان الخط الابيض اتقطع حاجة خفيفة اوي
و فعلا ده كسر بس undisplaced

Avulsion Fracture of Greater Tuberosity of Humerus



Avulsion fracture of the greater tuberosity of the humerus




ايه دي ؟؟



Tab3an **fracture shaft humerus** mafeesh awda7 mn keda

w 3ndak rule lazeez by2ol lw fe ay <u>transverse</u> fracture fe shaft yeb2a dawar 3ala pathology heya elly sabebet el fracture

لو بصينا هنا كويس هنلاقي
zone of sclerosis
الخط الأبيض ده
Denoting pathological changes in bone



Pathological Fracture shaft humerus

Q: Comp. ?

(radial nerve injury & non union)

Q: Treat.?

(CR & IF by interlocking nails)

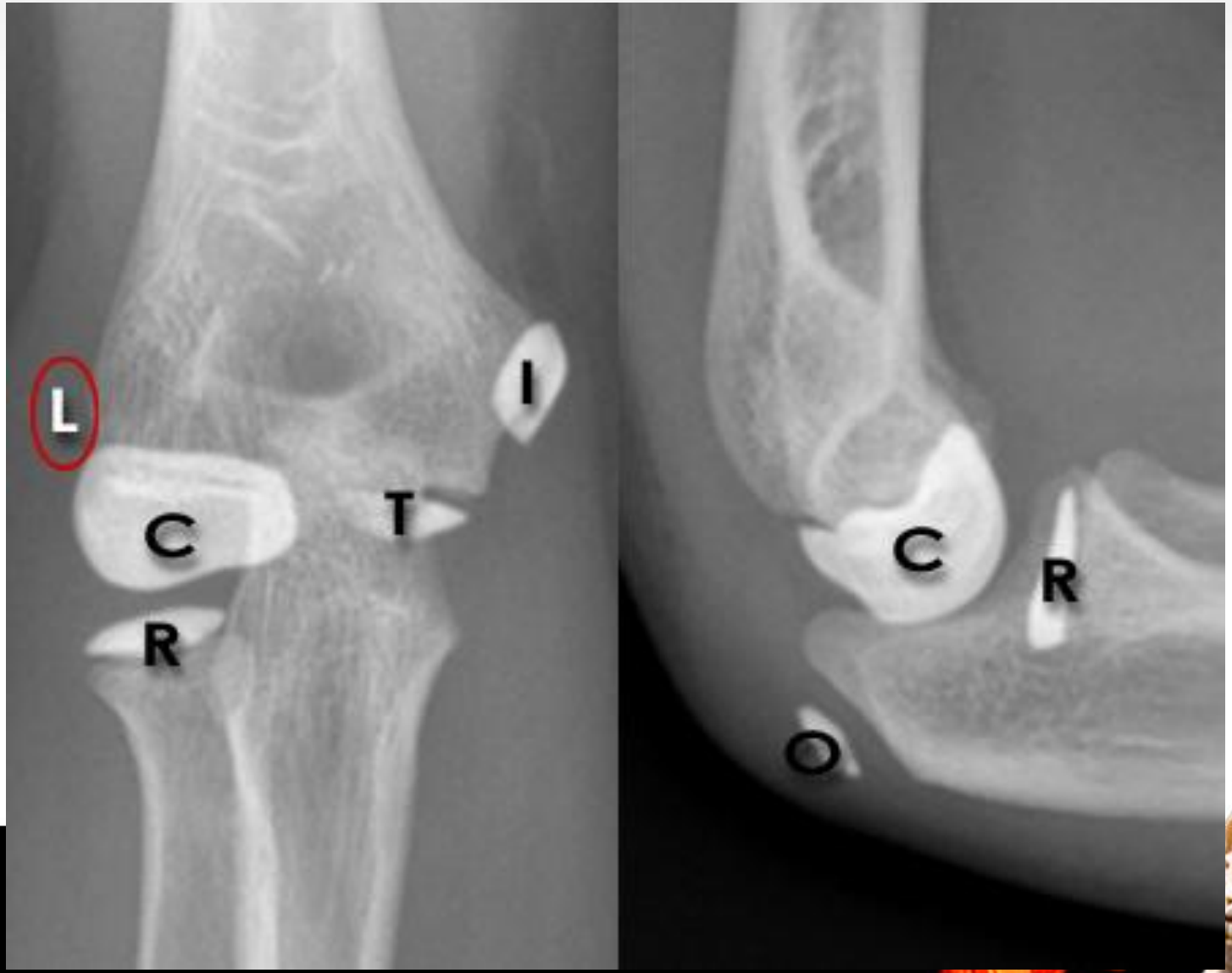


ELBOW

Normal Elbow of a Child

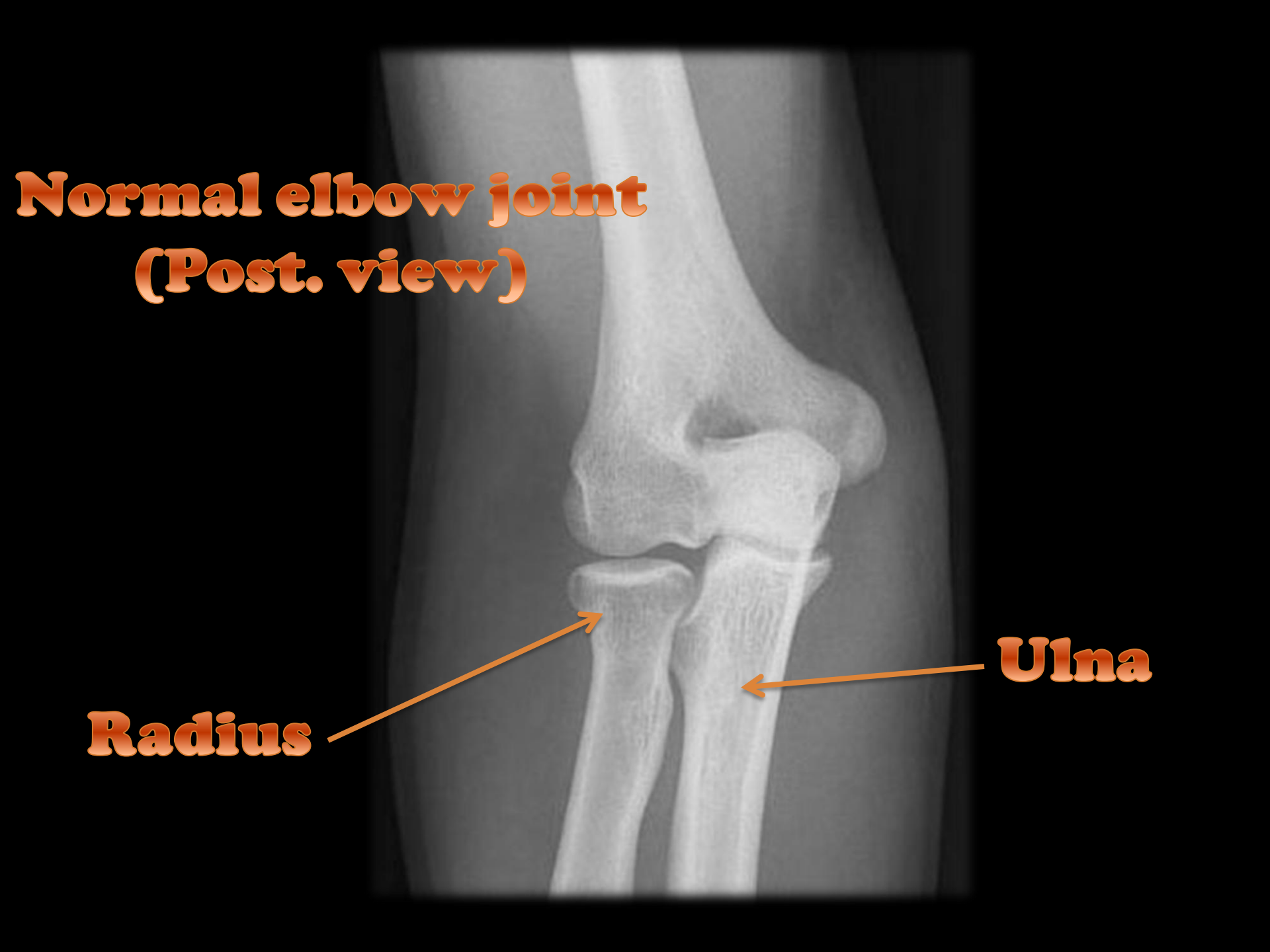


C= Capitulum R= Radial head I= Inner epicondyle T= Trochlea O= Olecranon



Normal elbow joint




Normal elbow joint
(Post. view)
Radius
Ulna

Normal elbow joint (Epiphyseal plates)



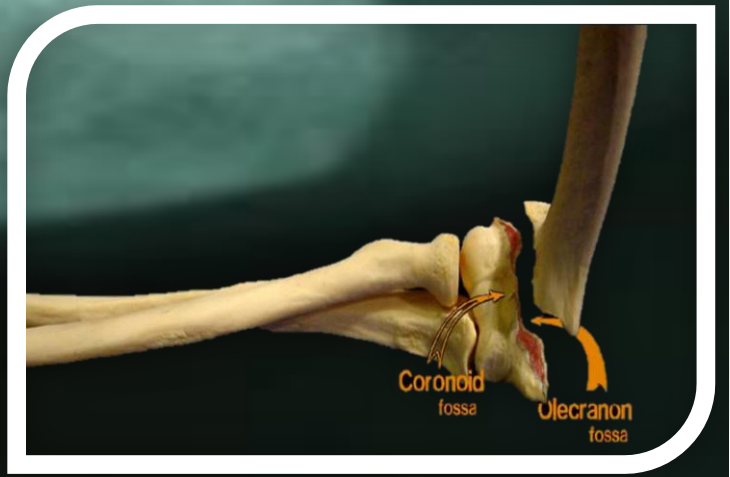


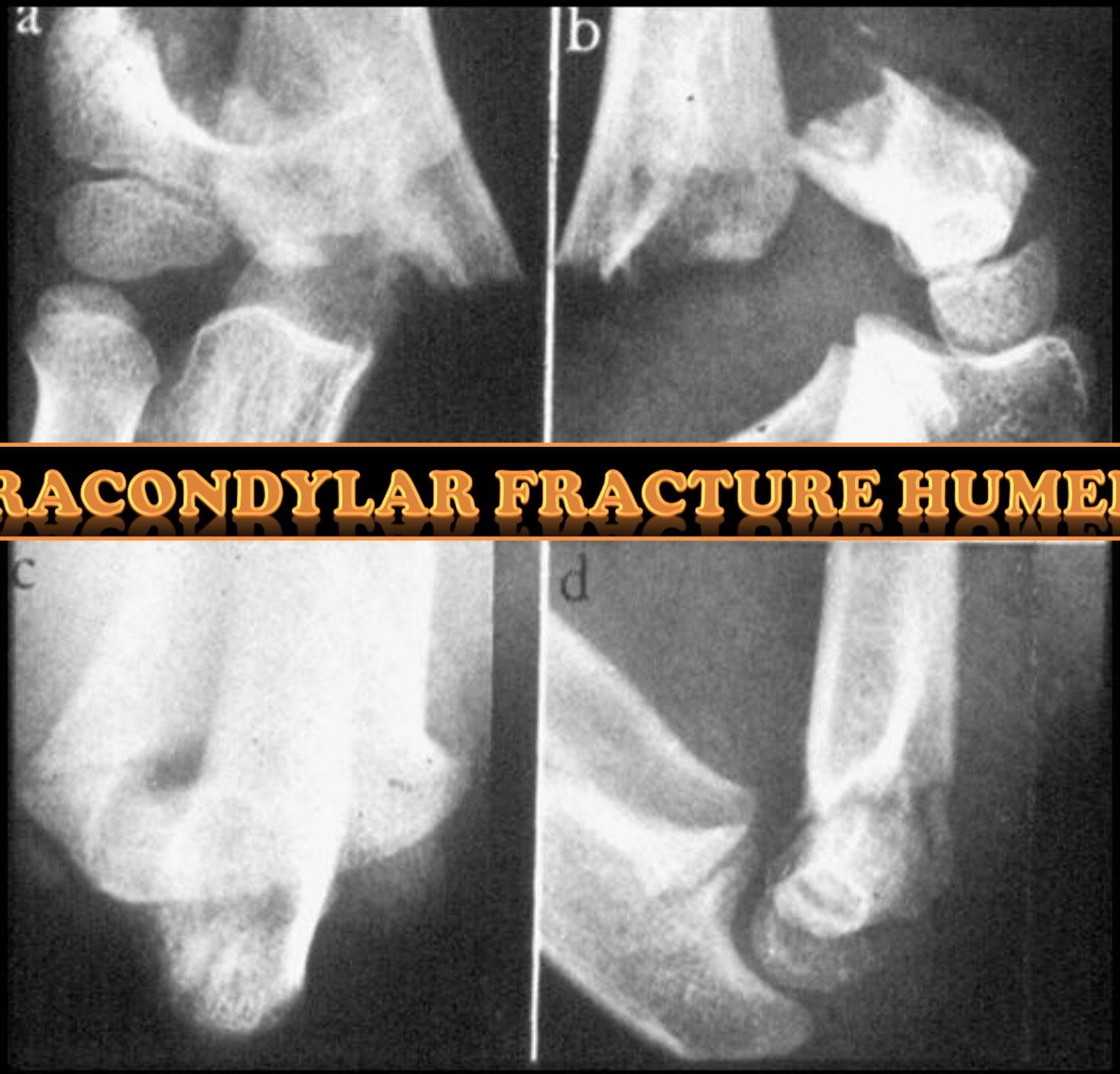
Normal elbow joint (Epiphyseal plates)




ايه دي ؟؟

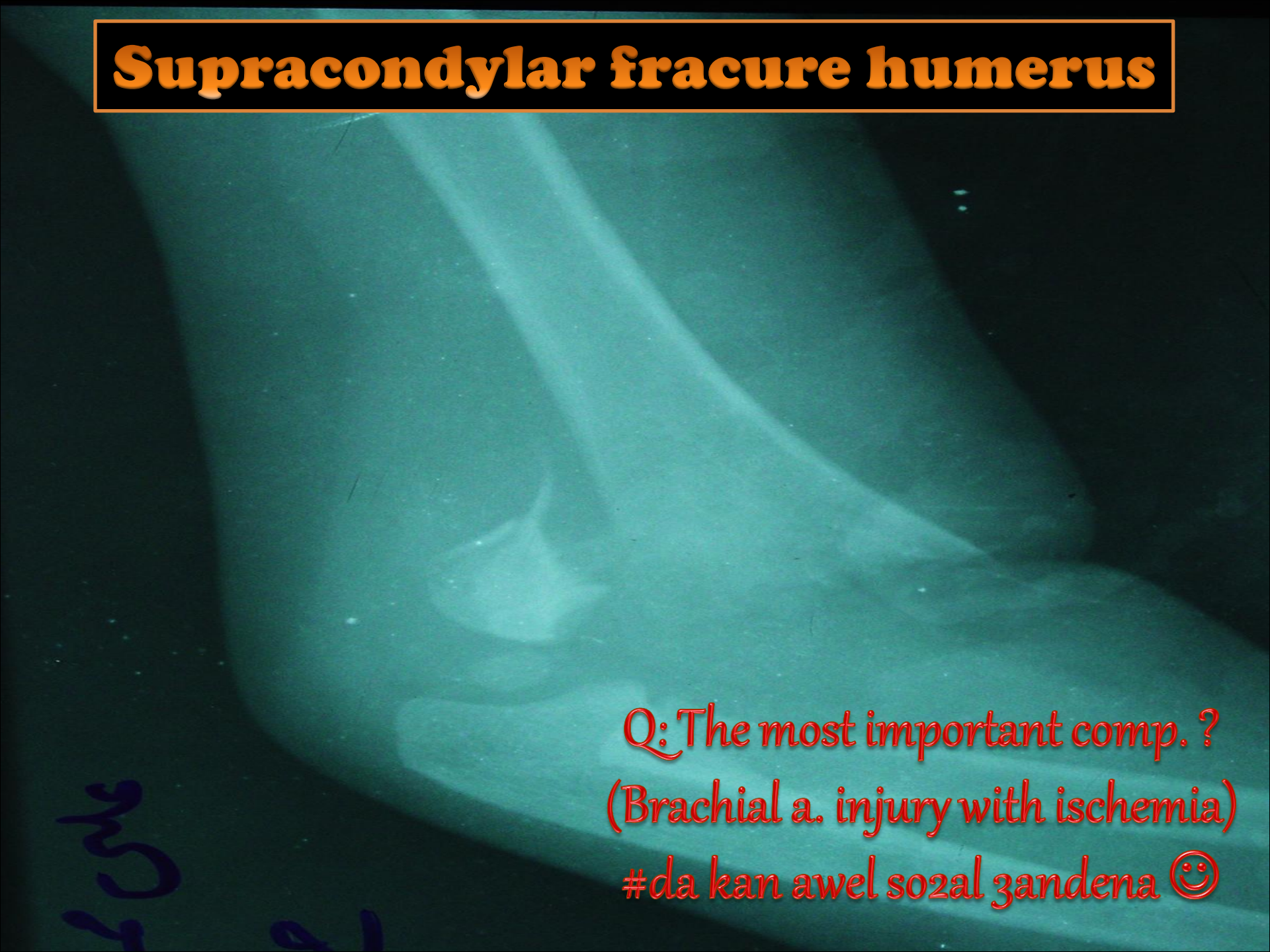
SUPRACONDYLAR FRACTURE HUMERUS





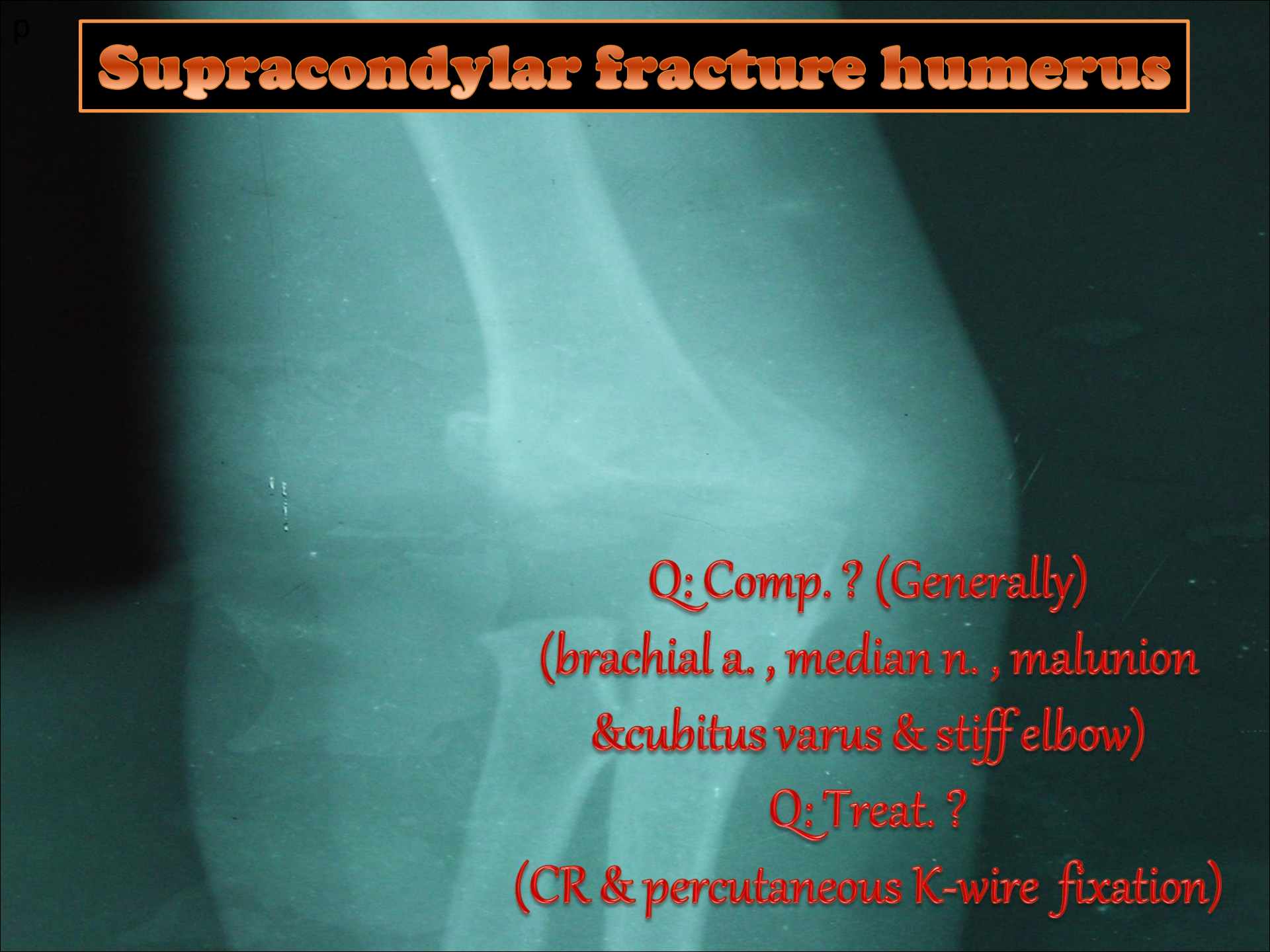
SUPRACONDYLAR FRACTURE HUMERUS

Supracondylar fracure humerus

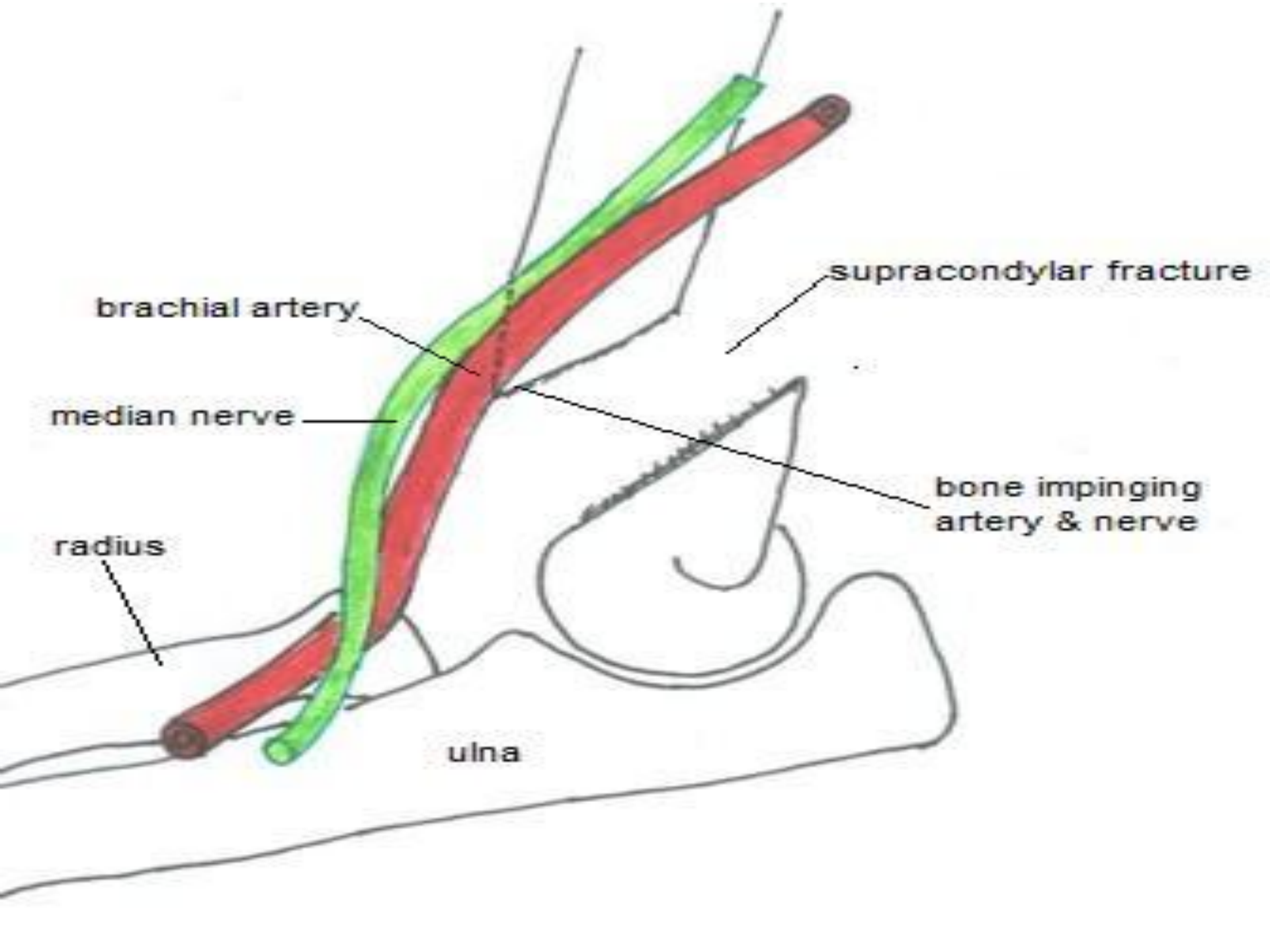


Q: The most important comp. ?
(Brachial a. injury with ischemia)
#da kan awel so2al 3andena ☺

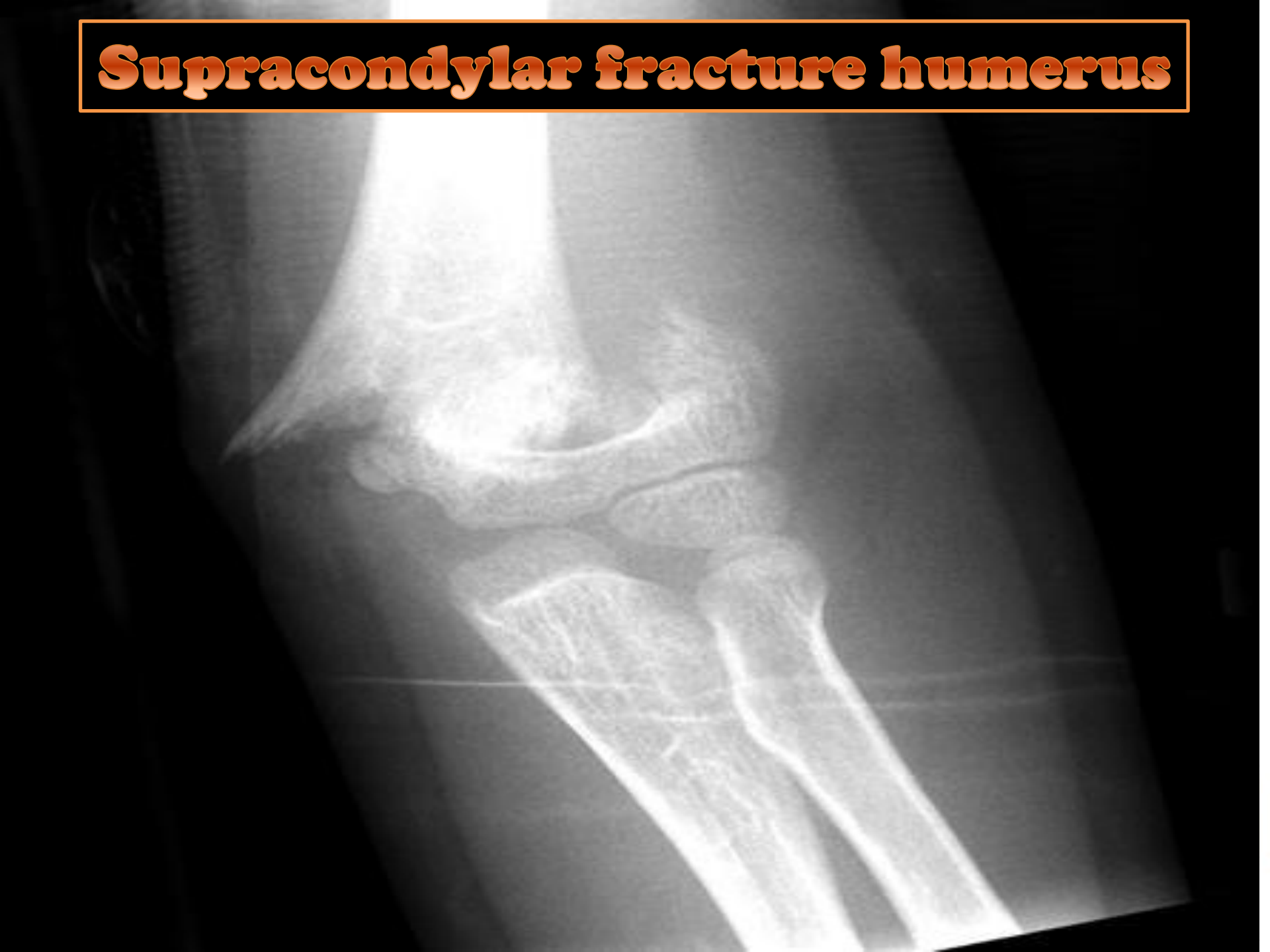
Supracondylar fracture humerus



Q: Comp. ? (Generally)
(brachial a. , median n. , malunion
&cubitus varus & stiff elbow)
Q: Treat. ?
(CR & percutaneous K-wire fixation)


supracondylar fracture
brachial artery
median nerve
bone impinging
artery & nerve
radius
ulna

Supracondylar fracture humerus



Supracondylar fracture humerus



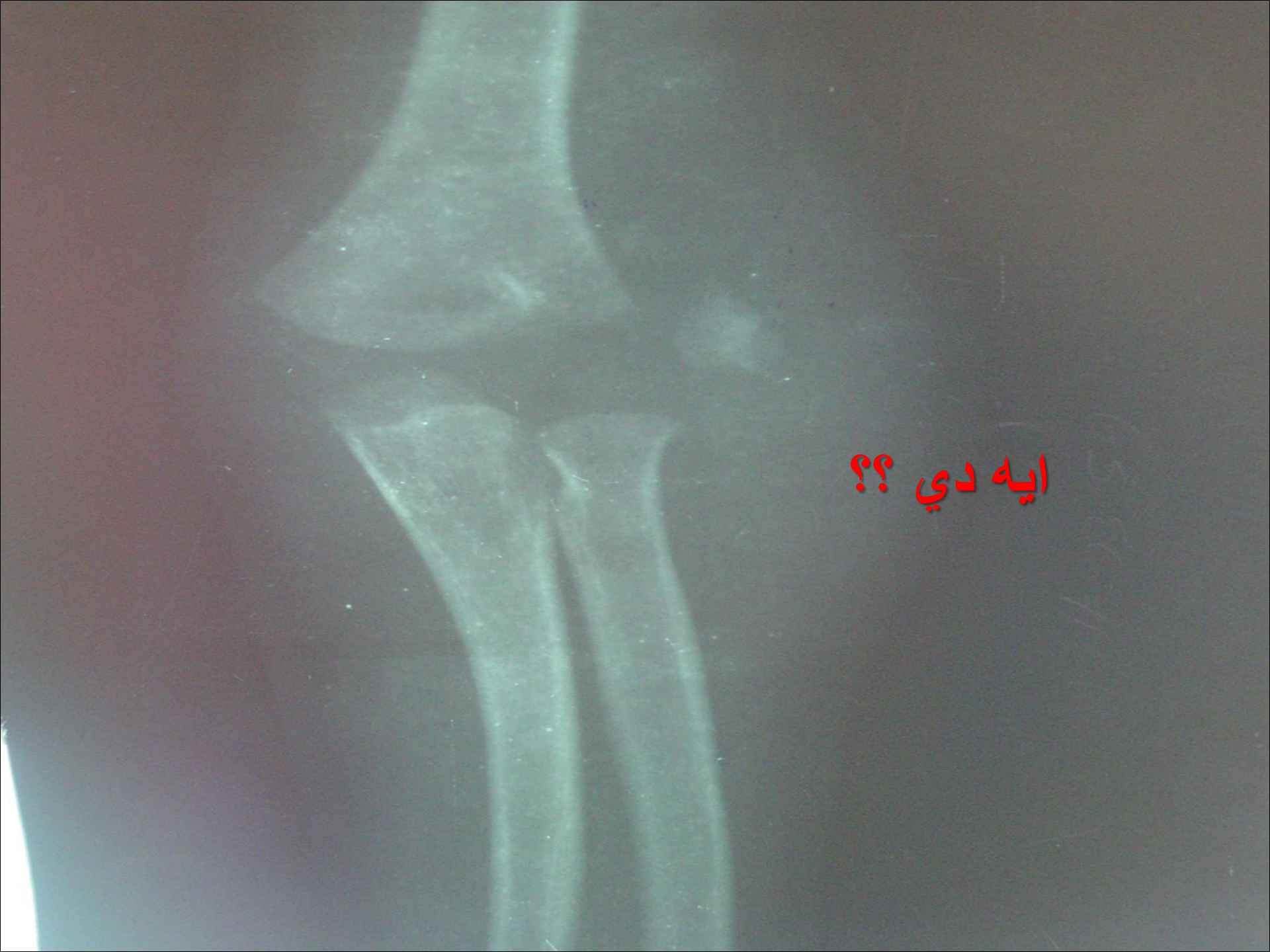
Q: Treat. ?

Q: Comp. ?

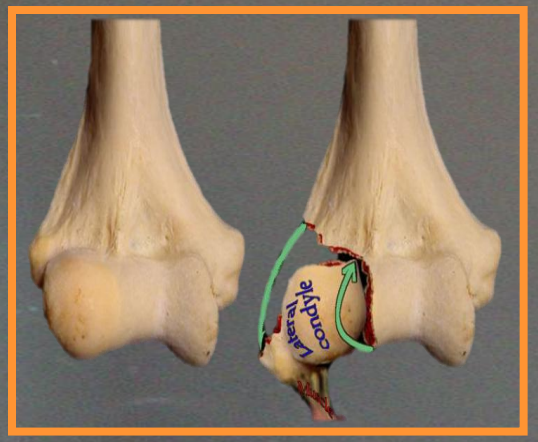
(VIP)



Supracondylar fracture of humerus


ايه دي ؟؟

Fracture lateral humeral condyle



Q: Treat. ?

(Displaced >> OR & IF by K-wires then immobilized in a plaster slab)

Q: Comp. ?

(malunion & cubitus valgus with delayed ulnar neuritis)

Treatment by OR & k-wire fixation



ايه دي ؟؟

Post. Dislocation of the elbow

Q: Comp. ?

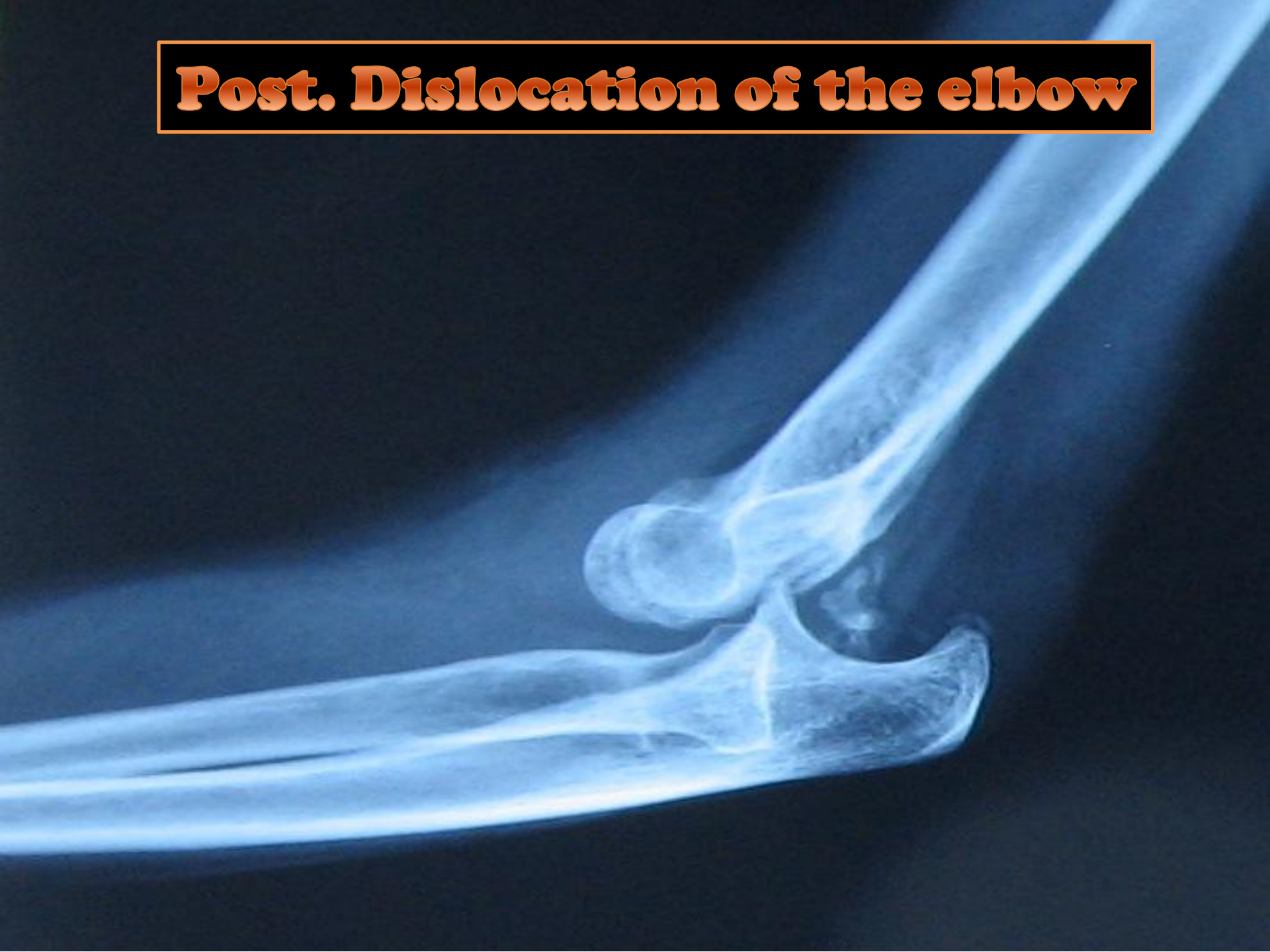
(brachial a. , median n. , stiff elbow & associated fractures)

Q: Treat. ?

(CR & above elbow plaster cast)



Post. Dislocation of the elbow



Post. Dislocation of the elbow



ايه دي ؟؟

Avulsion fracture olecranon

Q: Treat. ?

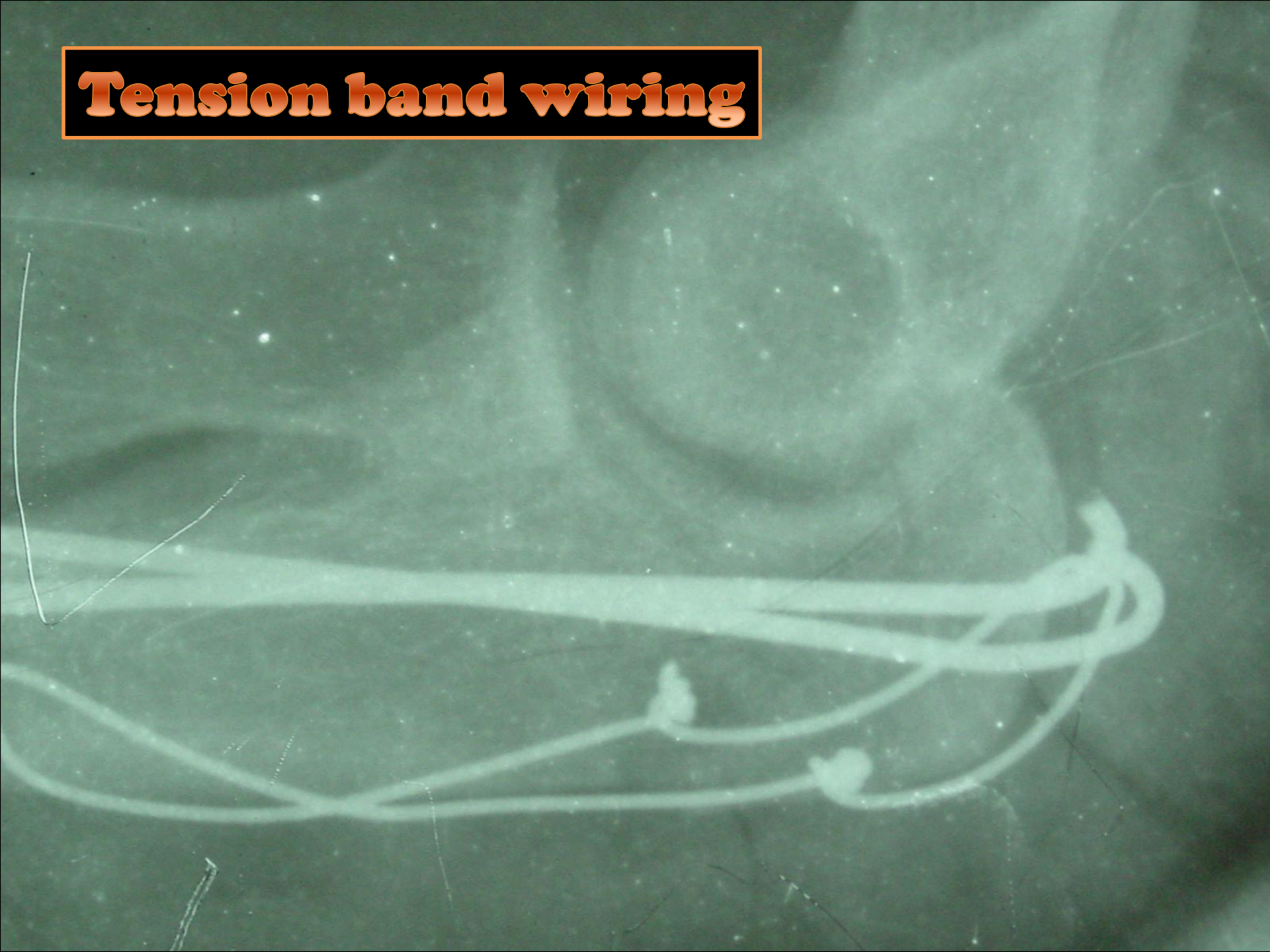
(OR & IF by Tension Band Wiring)



Avulsion fracture olecranon

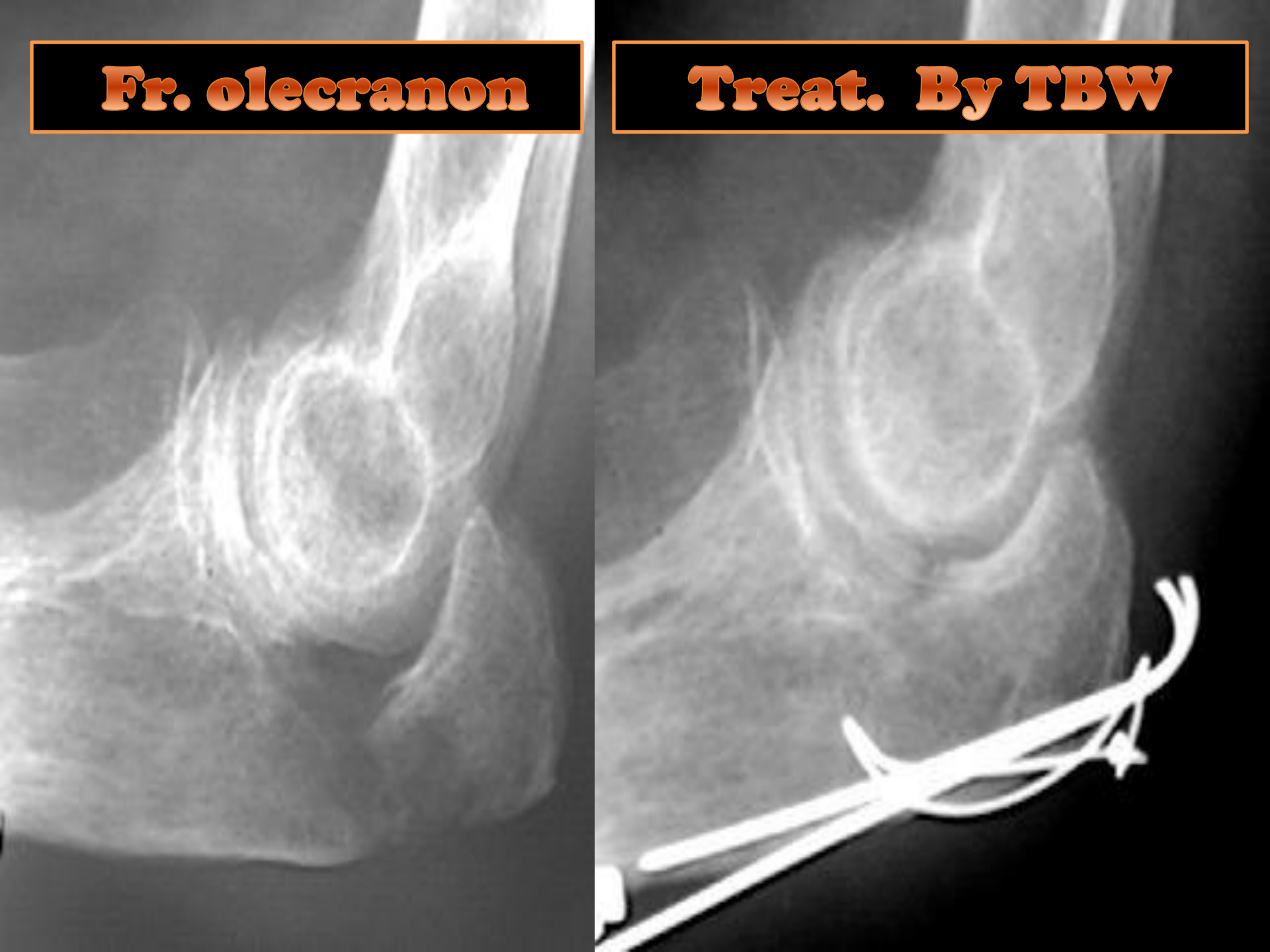


Tension band wiring



Tension band wiring



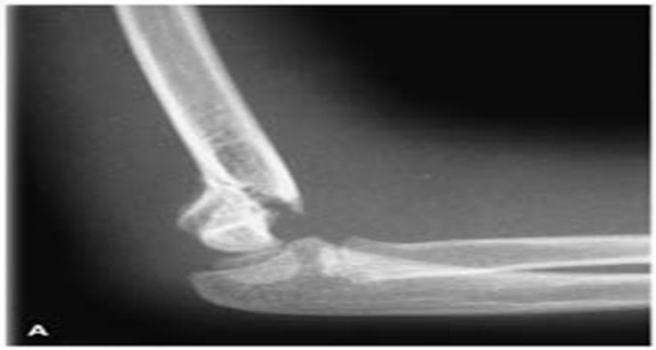

Fr. olecranon
Treat. By TBW

Fracture olecranon

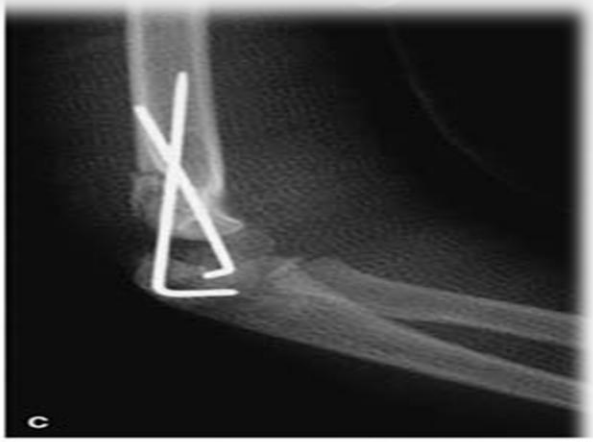




CR & k-wires







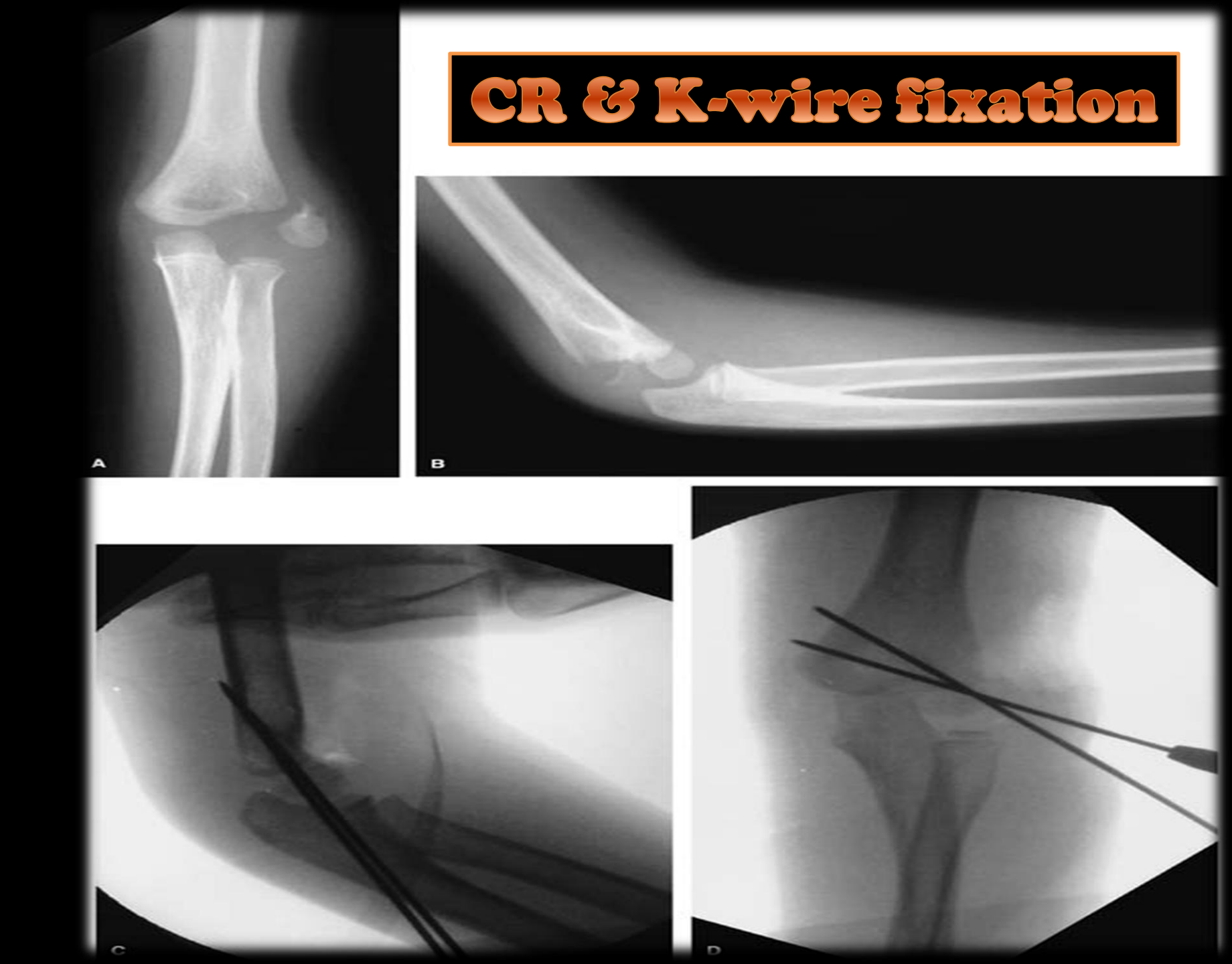








CR & K-wire fixation



Fracture neck radius





Q: Treat. ?
(OR & IF by K-wires)

- بصوا عشان متتلخبطوش فى ال nerve injuries

احنا دلوقتى فى ال ARM يبقى هناخدها من فوق لتحت:

1. Axillary n. injury : shoulder dislocation or fracture neck humerus.

2. Radial nerve injury: Fracture shaft humerus.

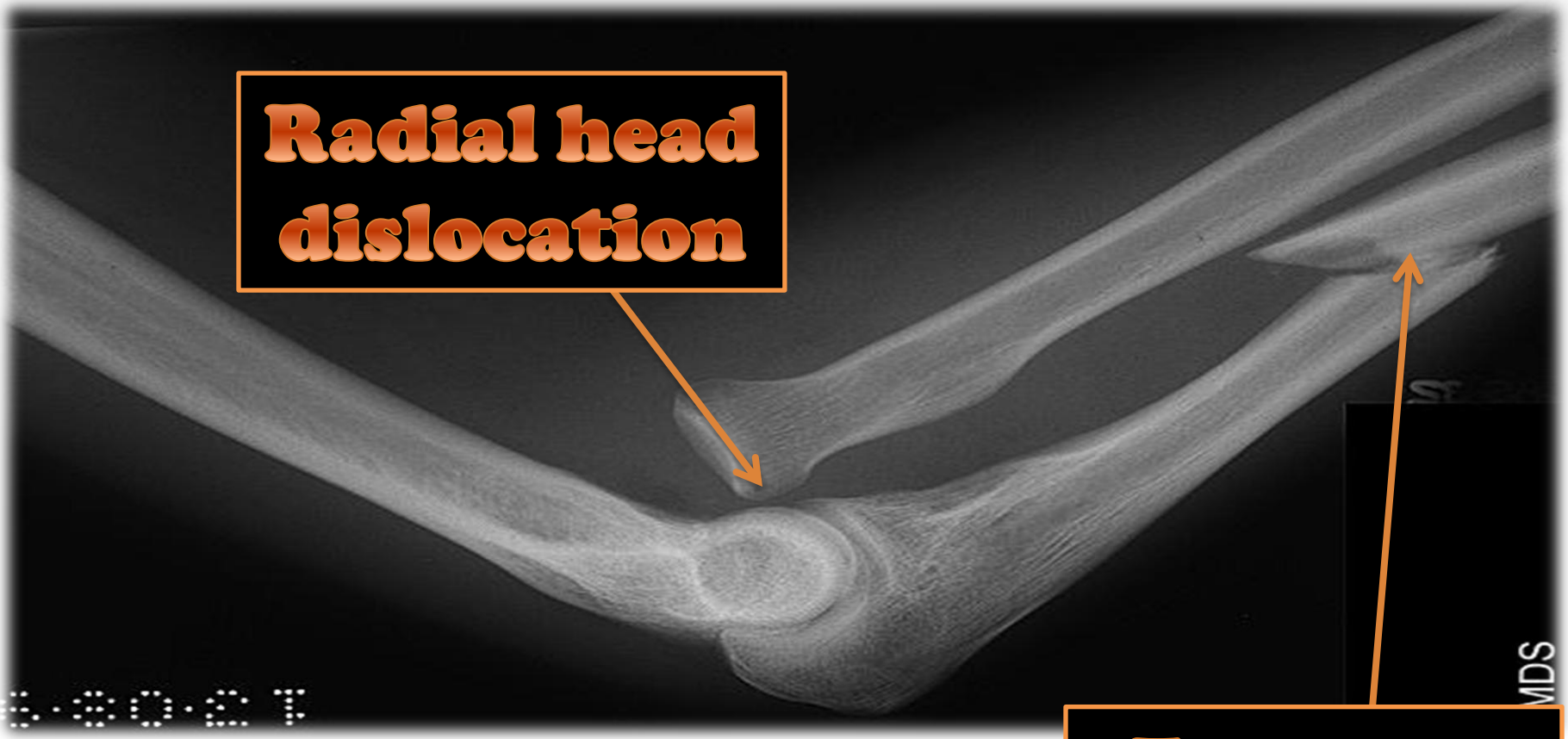
3.Median nerve injury: elbow dislocation or supracondylar fractures.




FOREARM

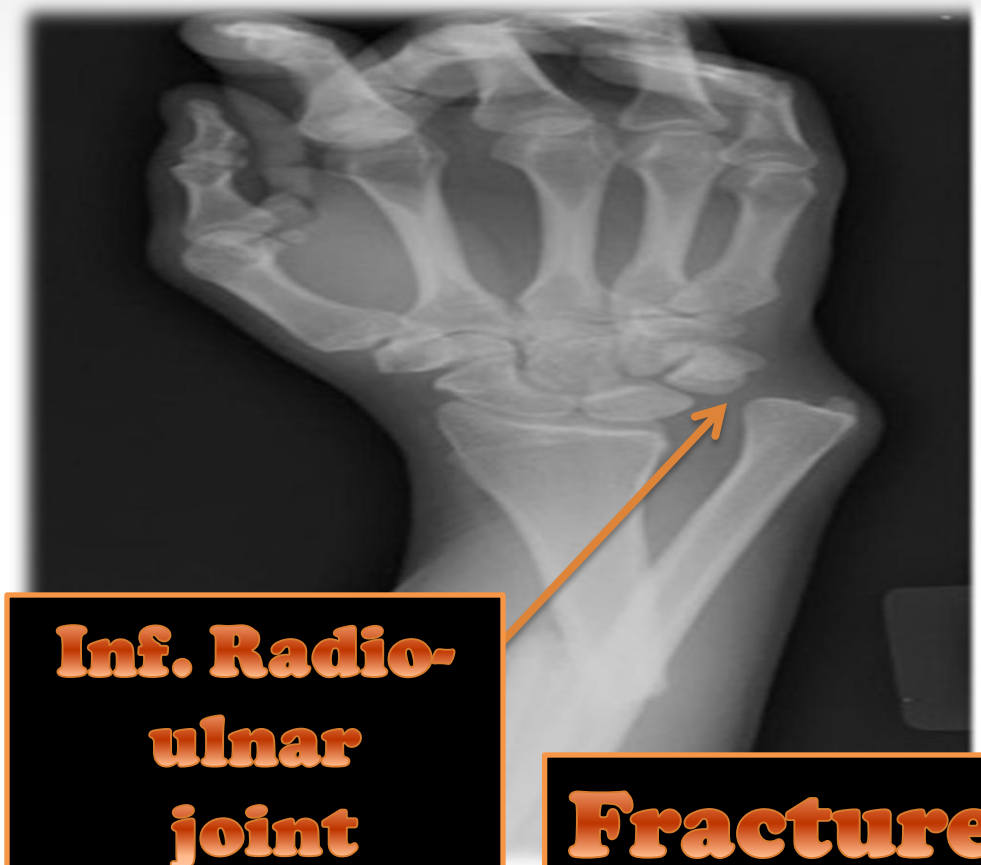

ايه دي ؟؟
UMDS

Monteggia fracture dislocation




ايه دي ؟؟

Galeazzi fracture dislocation





Inf. Radio-ulnar joint dislocation

Fracture lower 1/3 radius



ممكن دي نبسطها شوية عشان عارف ان ناس كتيرة بتتلغبط في الاسامي

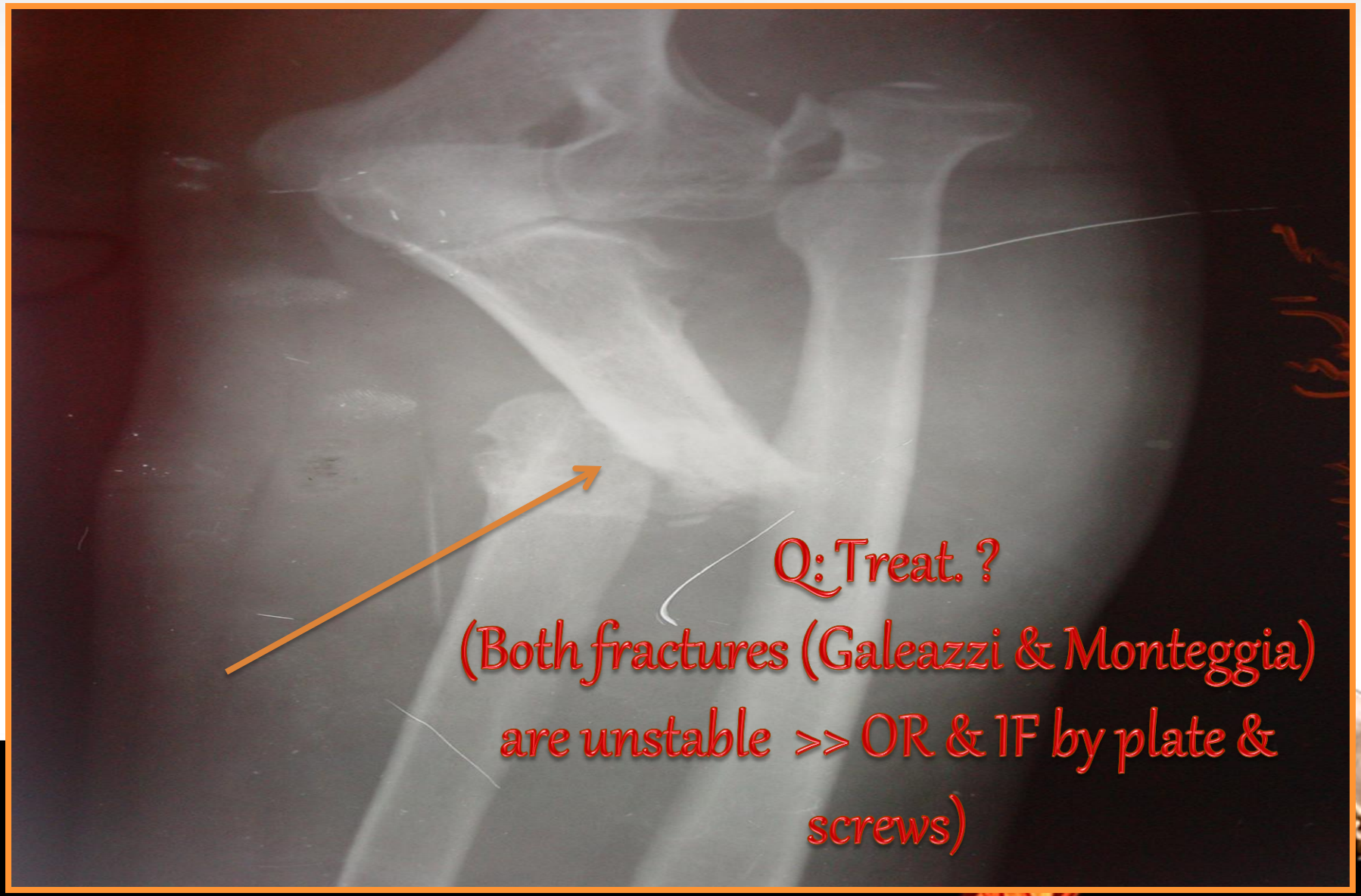
جبل = Montegia = Mont. = mount = mountain
و الجبل بيتكسر من فوق
upper fracture & dislocation

Galeazzi
تحس انها مدية على كريازي كدة (جاليازي من كريازي ما فرقتش)
:D
و التلاجة الكريازي لما بتتزحلق بتتزحلق من تحت
lower fracture & dislocation

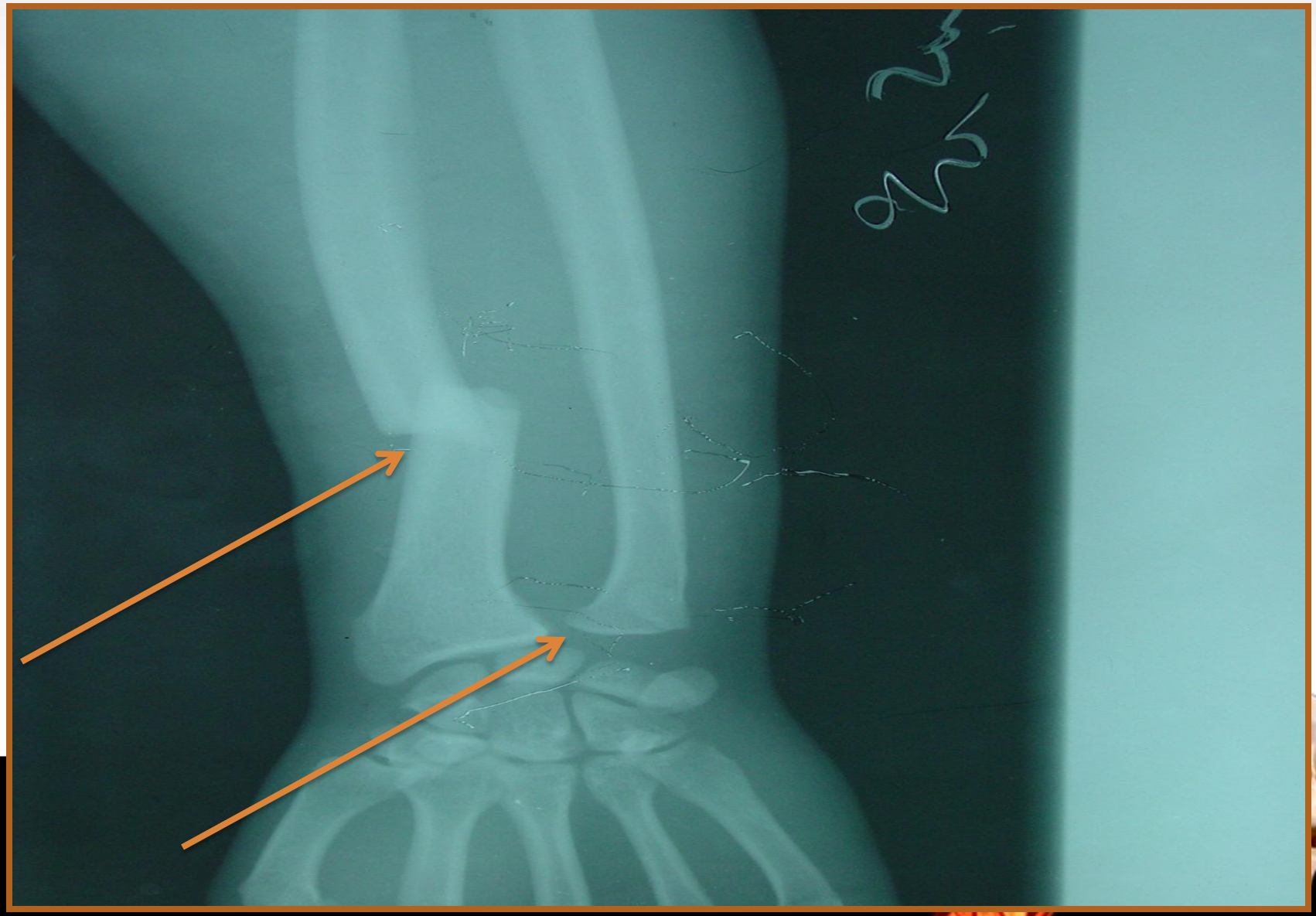
معلش انا عارف انه قلش أبو لهب و شوية و كفار الجاهلية هيجيوا يقلشوا معانا ... بس اهي طريقة نفيخة عشان ما تنسوهاش :D



MONTEGGIA FRACTURE DISLOCATION

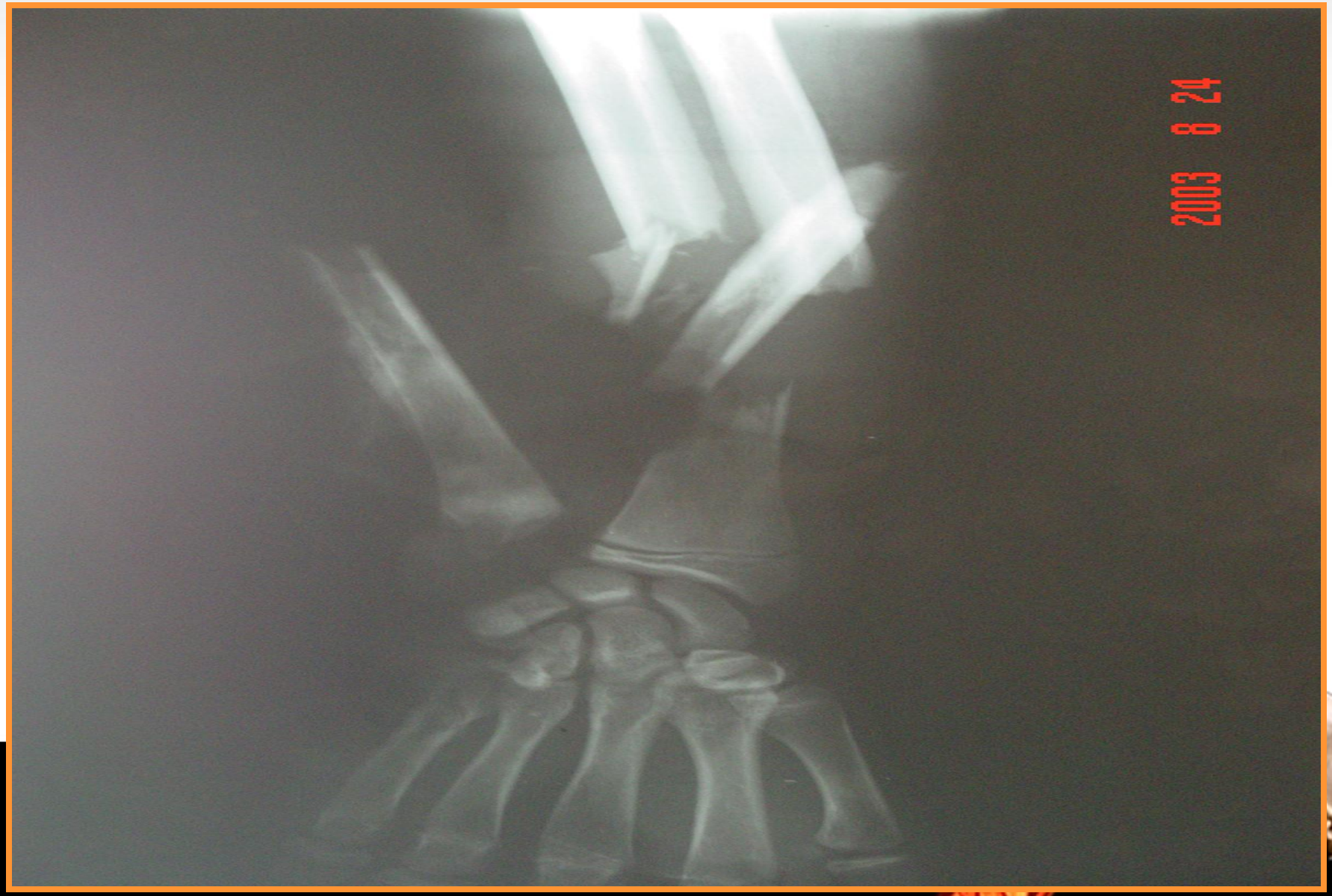


GALEAZZI FRACTURE DISLOCATION




2003 8 24
ايه دي ؟؟

BOTH BONES FRACTURE



BOTH BONES FRACTURE



BOTH BONES FRACTURE TREAT. BY K-WIRES






WRIST & HAND

NORMAL WRIST & HAND



NORMAL
WRIST & HAND IN CHILDREN
(WITH EPIPHYSEAL PLATES)



NORMAL WRIST & HAND



NORMAL WRIST & HAND



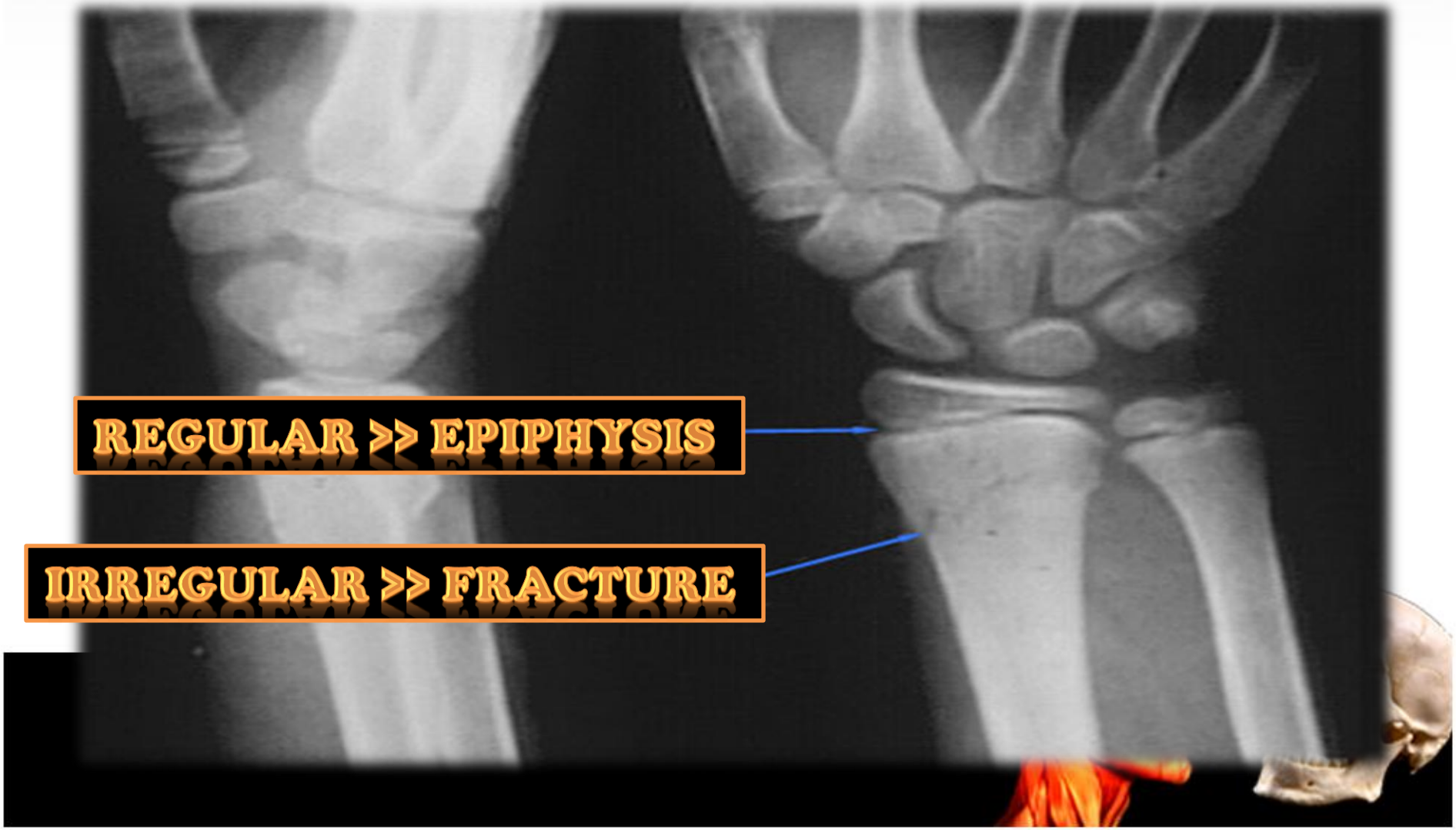
واحد يجي يسألني و يقولي ايه
الابيض ده

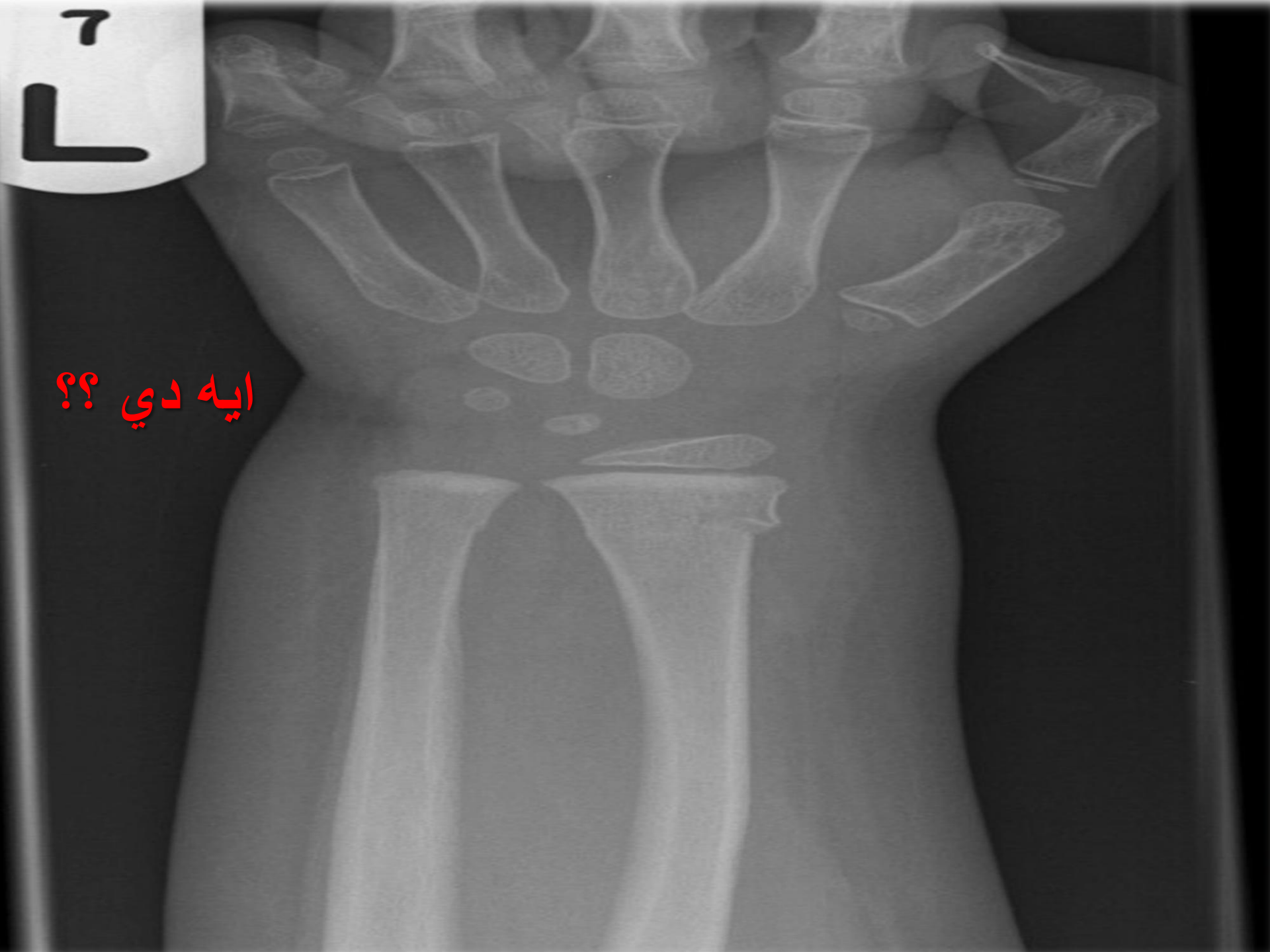
هقوله ده واحد بلطشجي واخد
رصاصة رش في ايده

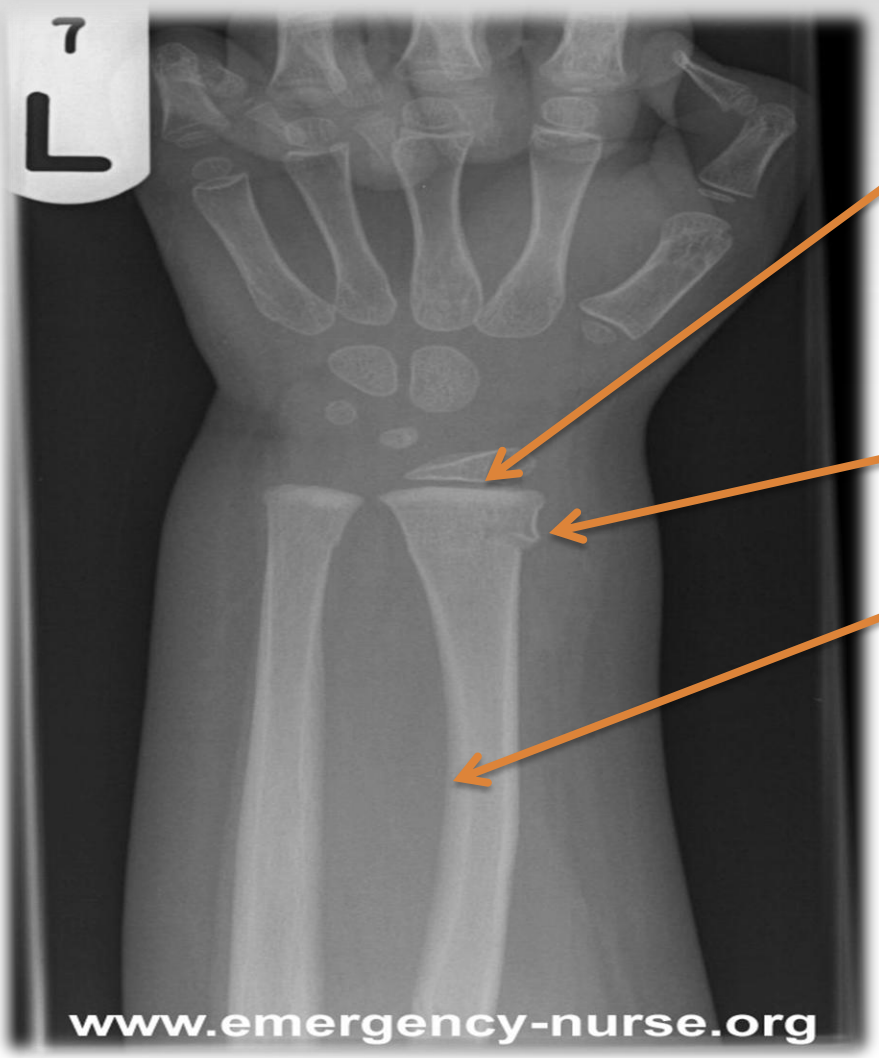
بتحصل ... عادي مافيييش حاجة

:D

How to differentiate between epiphyseal & fracture lines ?




ايه دي ؟؟



في البداية ناخد بالنا ان دي ايد طفل

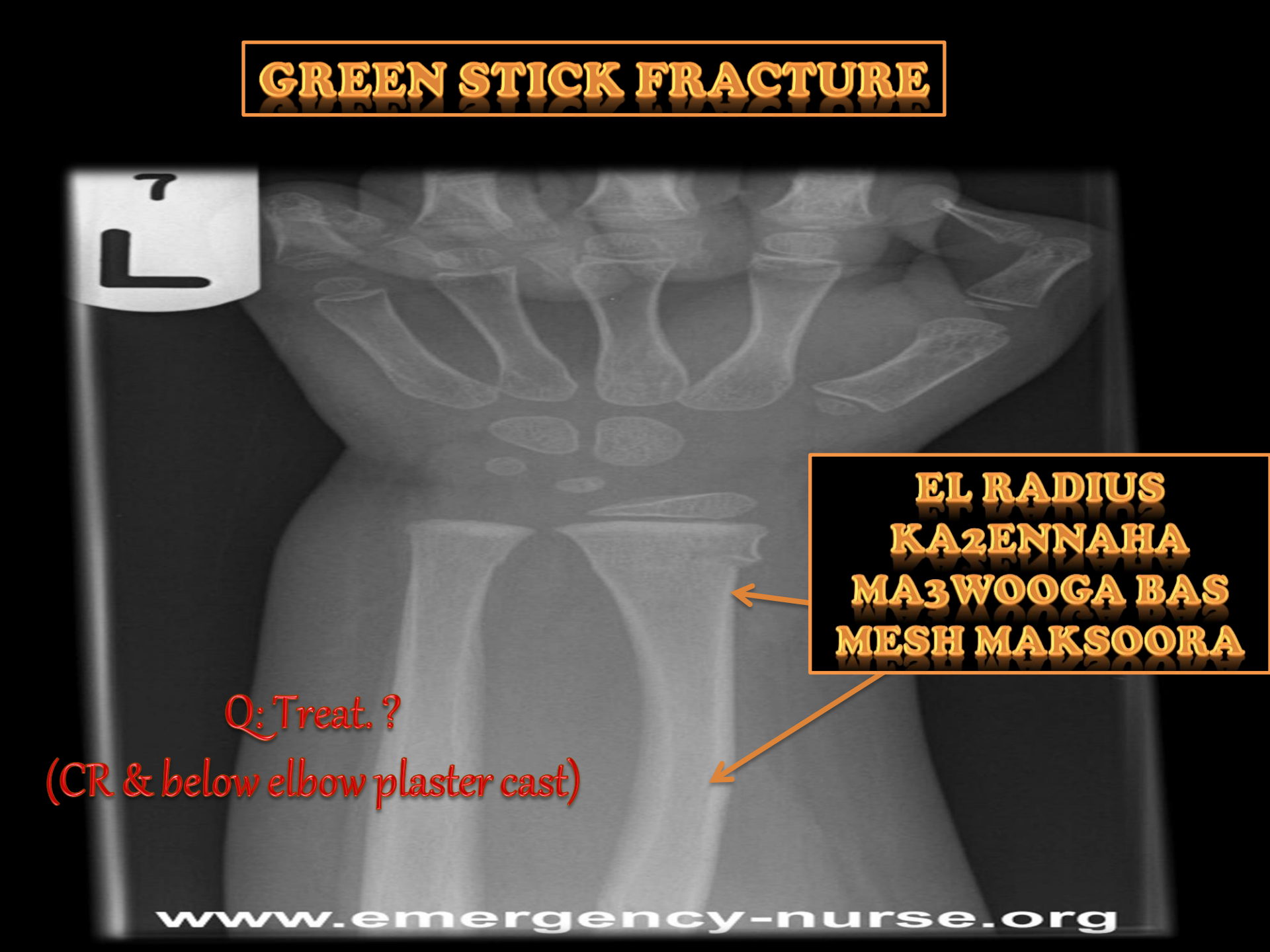
يبقى يخطر في بالنا على طول ال
greenstick fracture

هنلاقي في شرخ بسيط

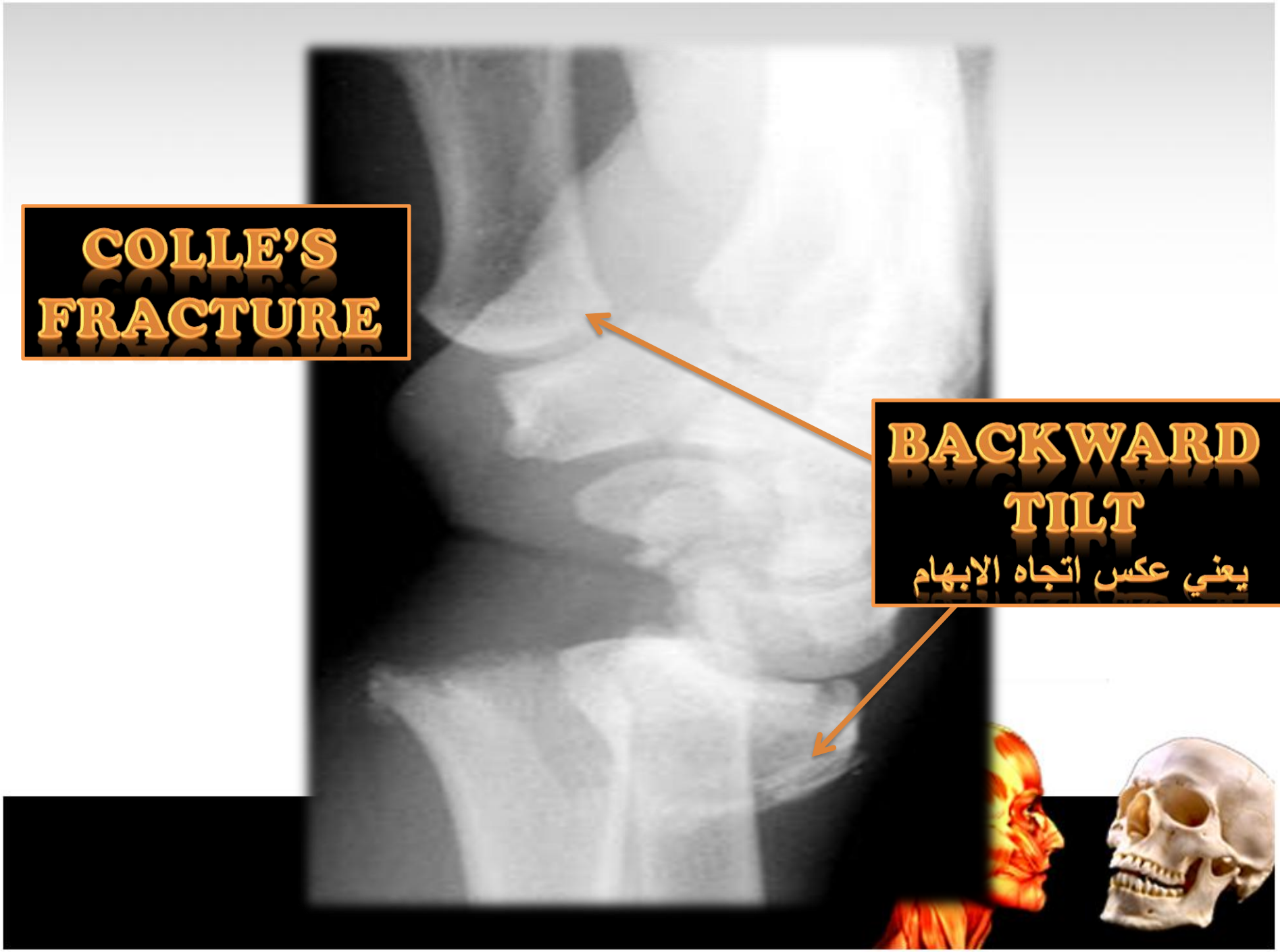
و معاه تقوس في العضمة
عشان العضم بتاعه لسة دعييف :D



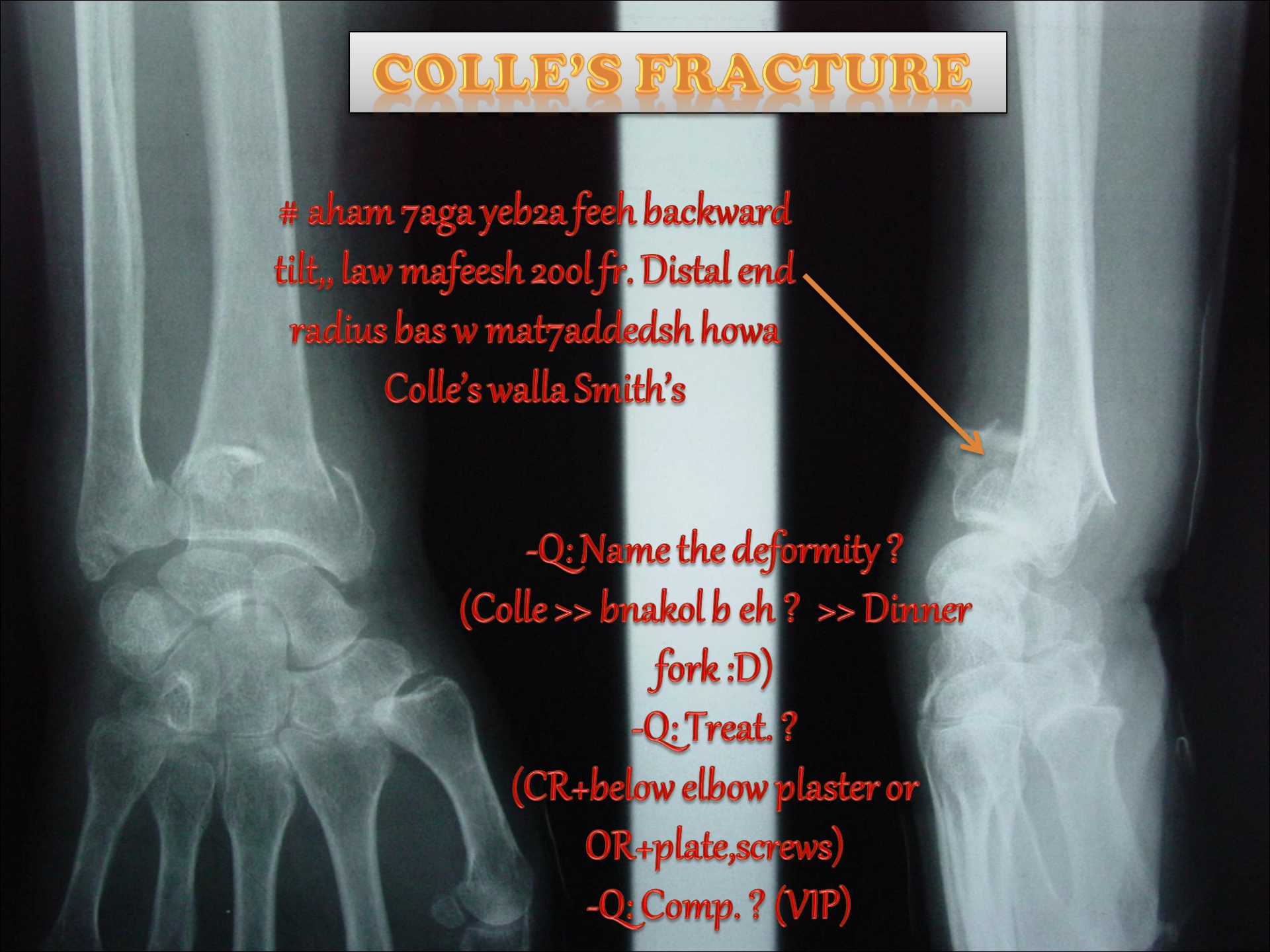
GREEN STICK FRACTURE




ايه دي ؟؟


COLLE'S FRACTURE
BACKWARD TILT
يعني عكس اتجاه الابهام

COLLE'S FRACTURE



aham 7aga yeb2a feeh backward tilt,, law mafeesh 2ool fr. Distal end radius bas w mat7addedsh howa Colle's walla Smith's

-Q: Name the deformity ?
(Colle >> bnakol b eh ? >> Dinner fork :D)
-Q: Treat. ?
(CR+below elbow plaster or OR+plate,screws)
-Q: Comp. ? (VIP)

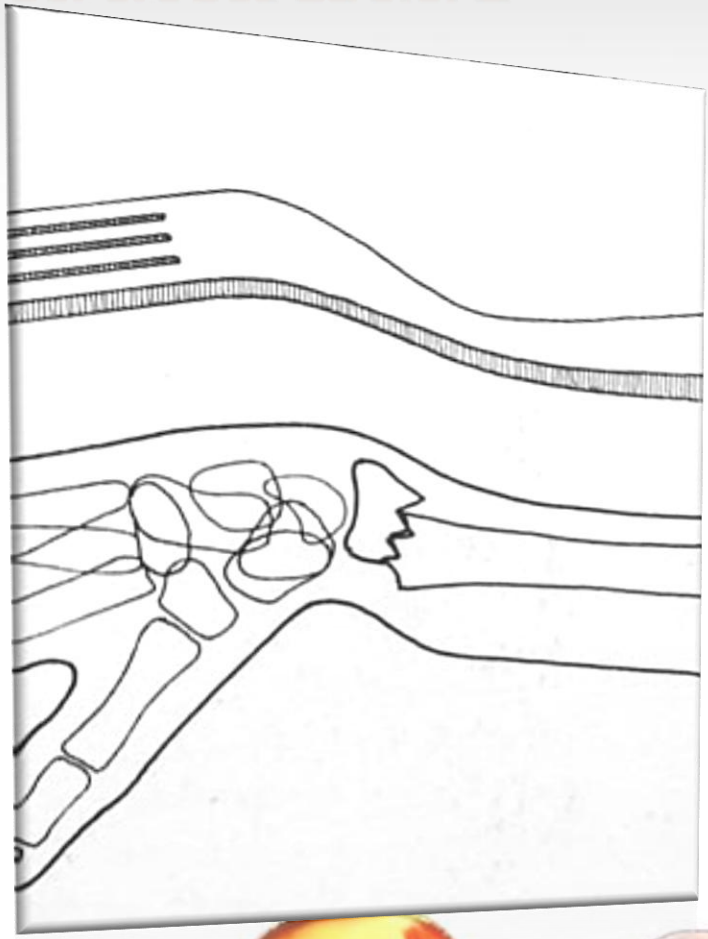


COLLE'S FRACTURE

LT HAND W EL THUMB ANTERIOR W EL DISTAL FRAGMENT FEEHA BACHWARD TILT

DINNER FORK DEFORMITY








ايه دي ؟؟

SMITH'S FRACTURE

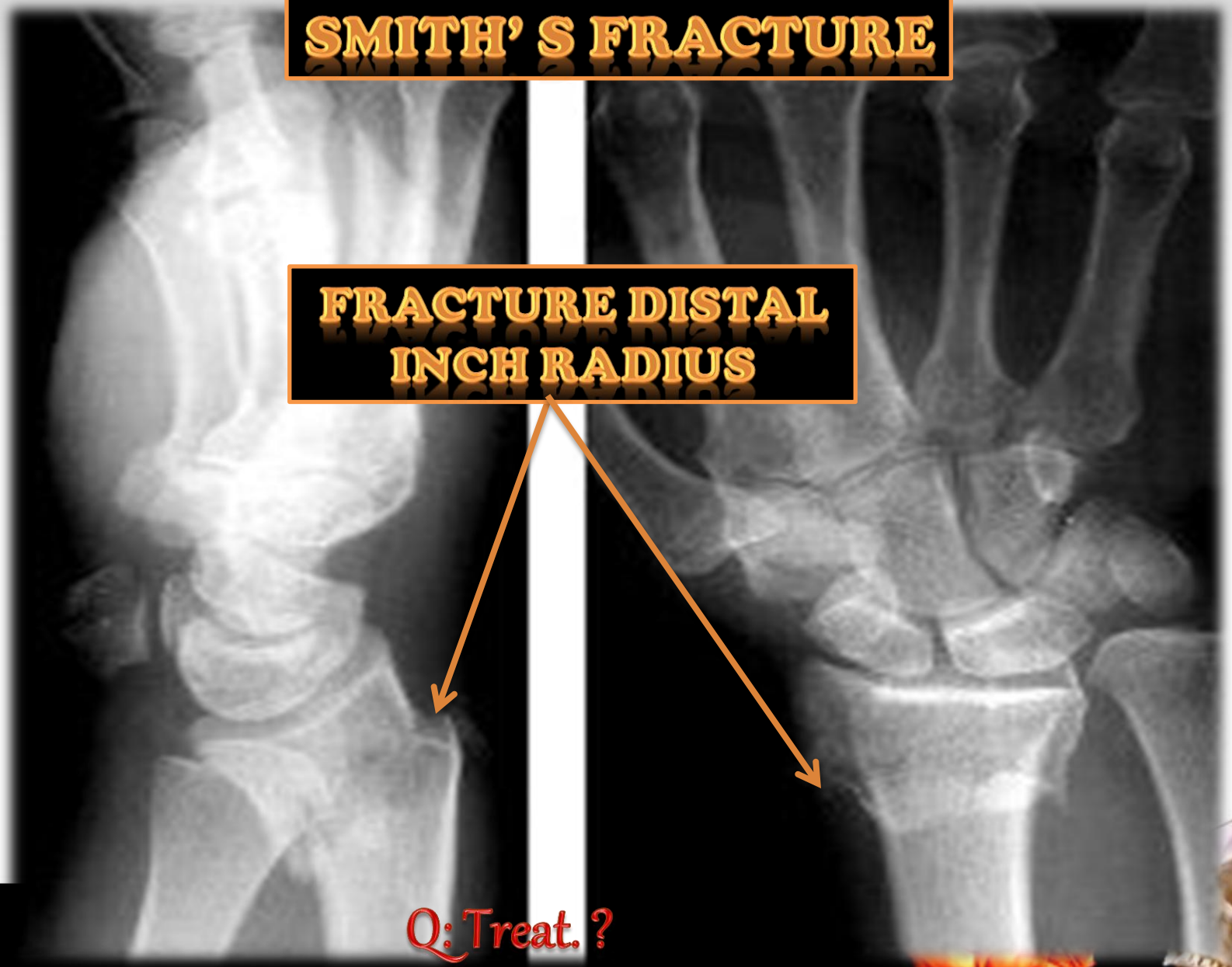


FORWARD TILT

يعني نفس اتجاه الابهام



SMITH' S FRACTURE

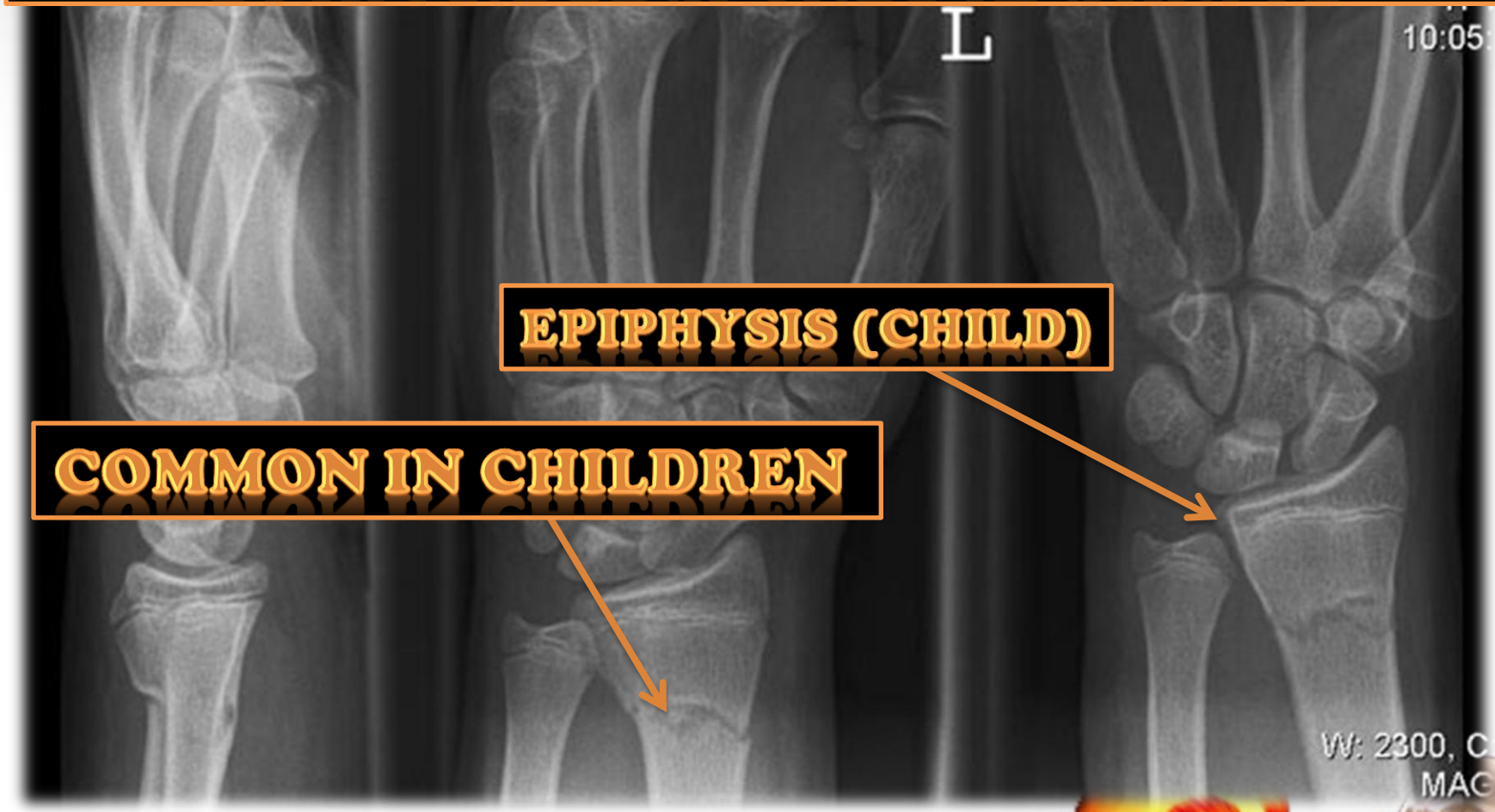


FRACTURE DISTAL INCH RADIUS

Q: Treat. ?

(CR & above elbow plaster cast or K wires)

SEPARATION OF LOWER RADIAL EPIPHYSIS = COLLE'S FRACTURE IN ADULTS

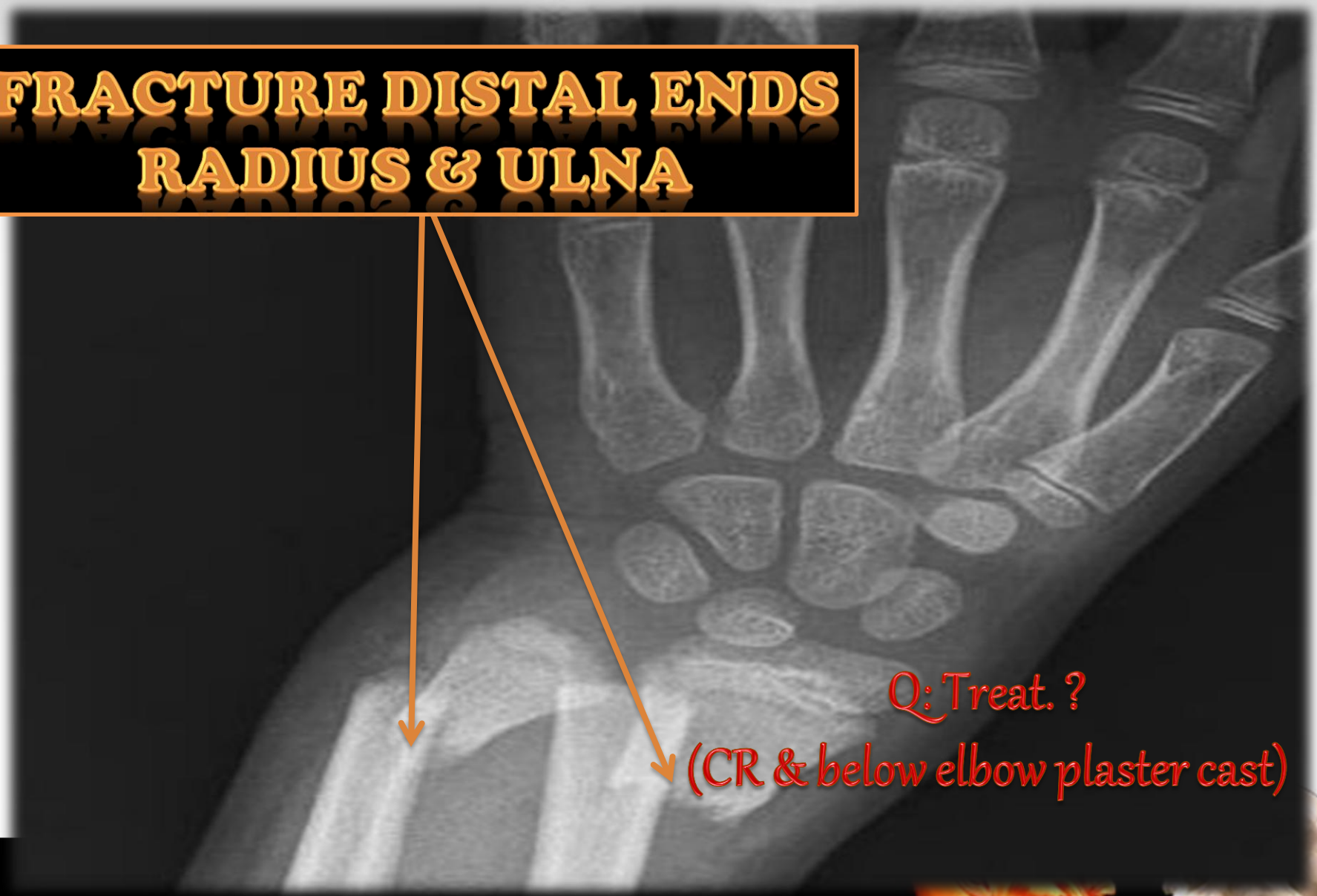


Q: Treat. ?

(CR & below elbow plaster cast)



FRACTURE DISTAL ENDS RADIUS & ULNA

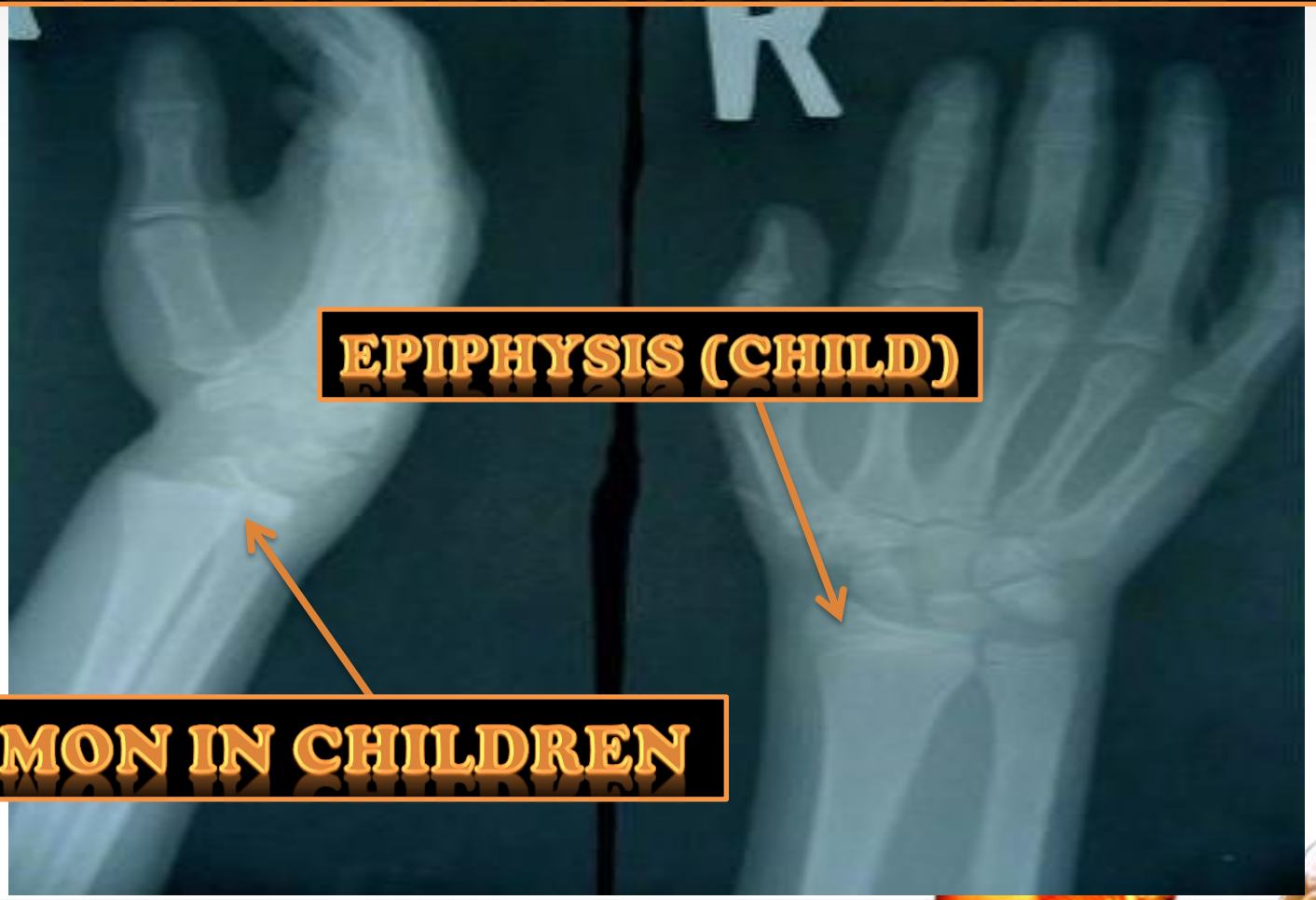


Q: Treat. ?

(CR & below elbow plaster cast)


R
ايه دي ؟؟

SEPARATION OF LOWER RADIAL EPIPHYSIS = COLLE'S FRACTURE IN ADULTS



Q: Treat. ?

(CR & below elbow plaster cast)

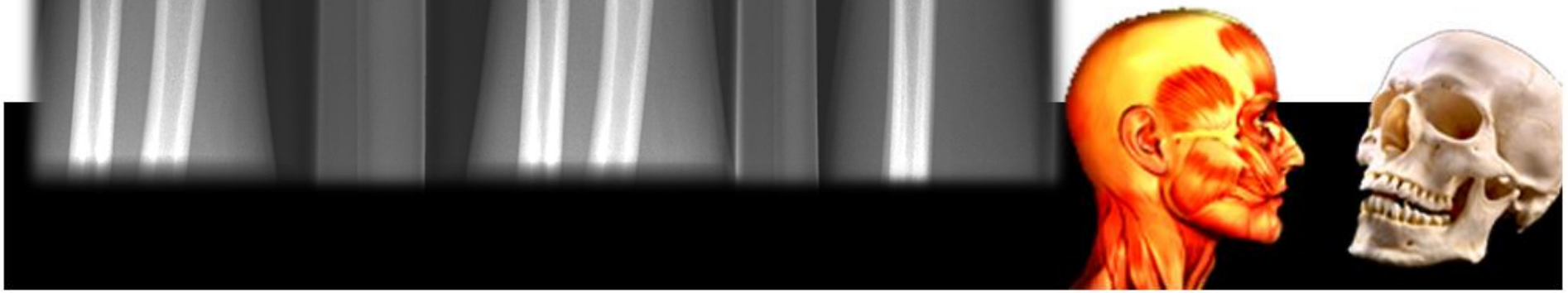



ايه دي ؟؟
L

الصورة دي صعبة شوية
el radius wel ulna tmam … no fractures no dislocations

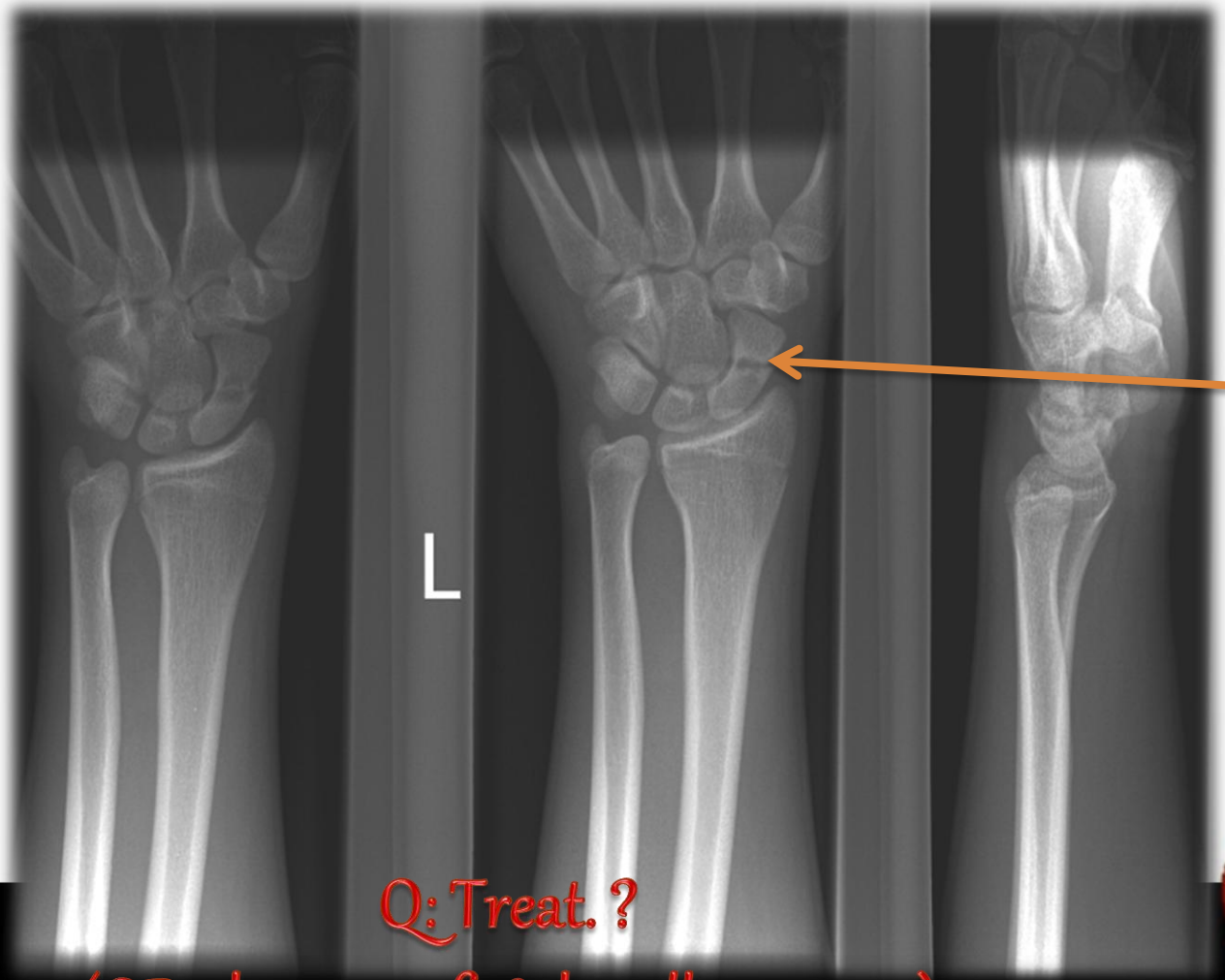
حيث كدة بقى ... يبقى نبص
على الايد نفسها جايز يطلع
فيها حاجة





الصورة دي صعبة شوية

el radius wel ulna tmam … no fractures no dislocations



حيث كدة بقى ... يبقى نبص على الايد نفسها جايز يطلع فيها حاجة

فعلا

there is **fracture of scaphoid** hena aho

Q: Treat. ?

(OR+ bone graft & headless screw)



Tagme3at Treatment:

- **humerus** >>> conservative except el pathological by interlocking nail
- **ay 7aga around elbow** >>> CR + wire
- **ay 7aga forearm** >>> OR + plate & screws
- **ay slipped epiphysis** >>> CR + pins or wires



In the memory of Dr. Mohammed El Ghandour





Done By

Hams Fekrey & Marwan El Sokkary

فريق المحاظ



Thank you

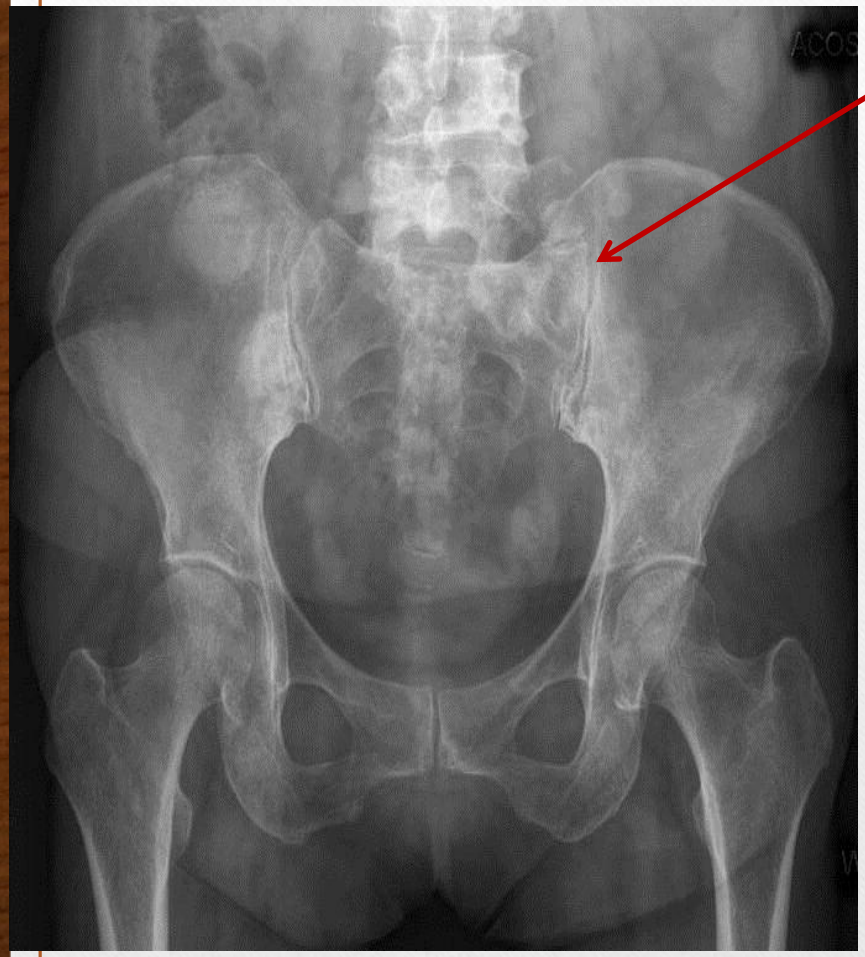


X ray Spots for lower limb



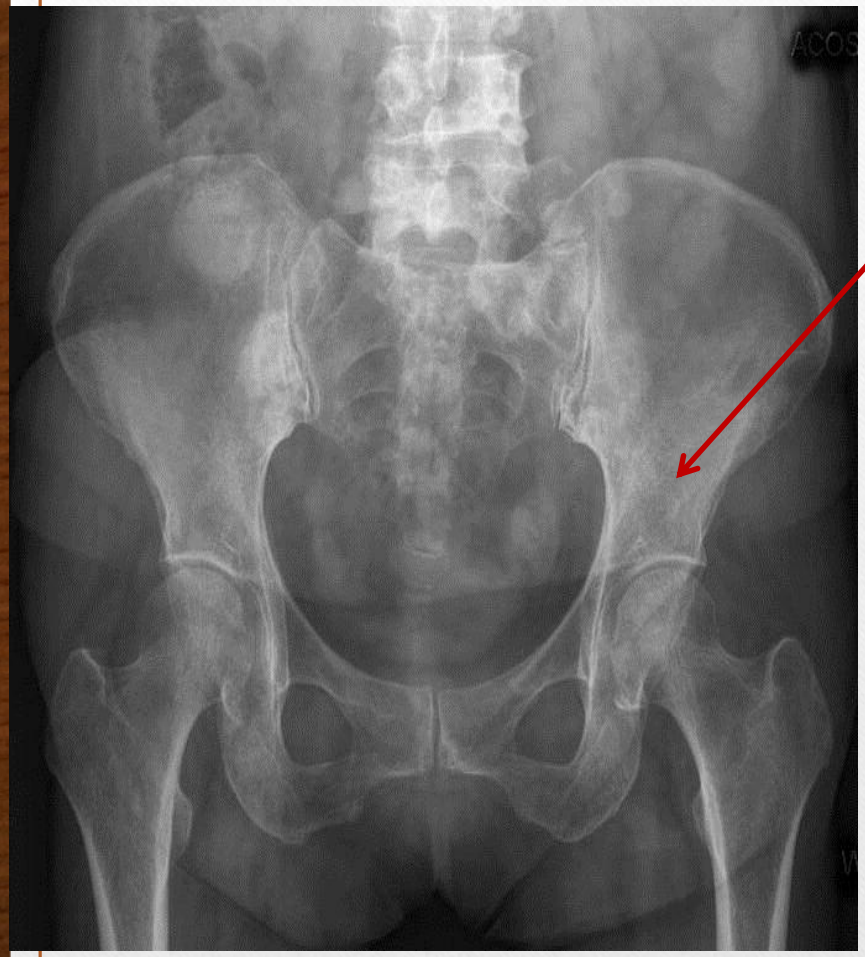
Normal pelvis

اول ما تلاقي صورة حوض ... يبقى هنبص على ٥ حاجات عشان مافييش حاجة تقع منا ان شاء الله



1) sacroiliac joint
في مكانه ولا مفصول

اول ما تلاقي صورة حوض ... يبقى هنبص على ٥ حاجات عشان مافييش حاجة تقع منا ان شاء الله



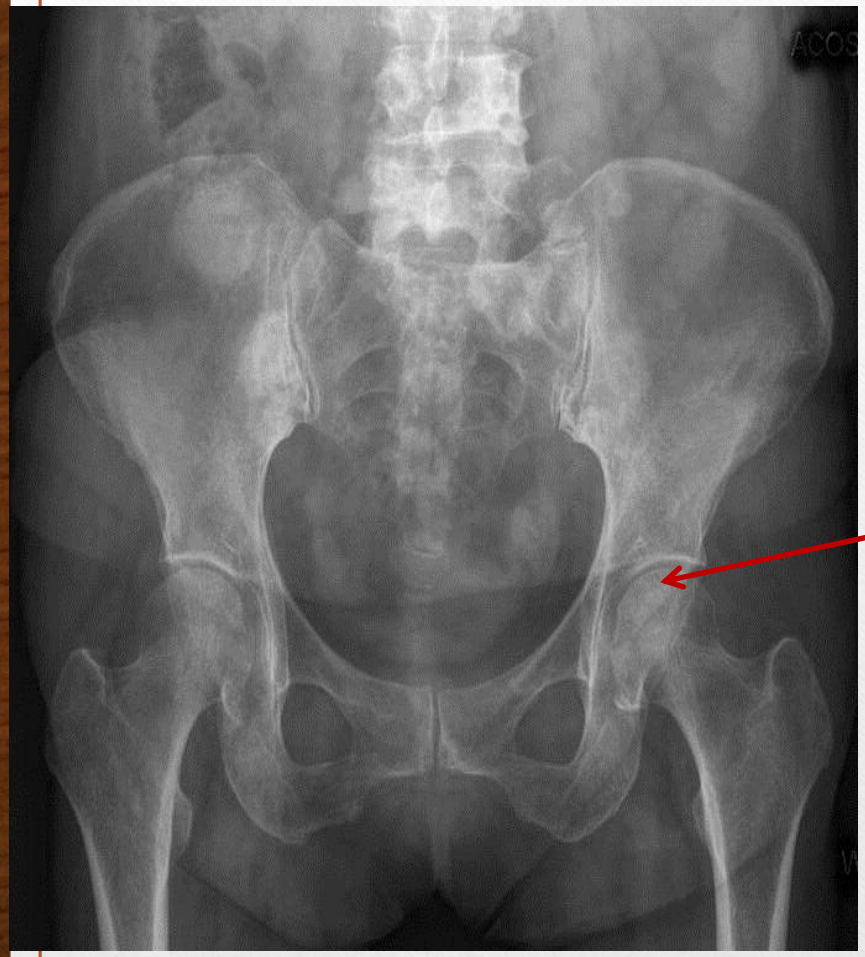
1) sacroiliac joint
في مكانه ولا مفصول
2) pelvic bone
جايز تكون مكسورة

اول ما تلاقي صورة حوض ... يبقى هنبص على ٥ حاجات عشان مافييش حاجة تقع مننا ان شاء الله



1) sacroiliac joint
في مكانه ولا مفصول
2) pelvic bone
جايز تكون مكسورة
3) symphysis pubis
جايز تكون مفصولة

اول ما تلاقي صورة حوض ... يبقى هنبص على ٥ حاجات عشان مافييش حاجة تقع منا ان شاء الله



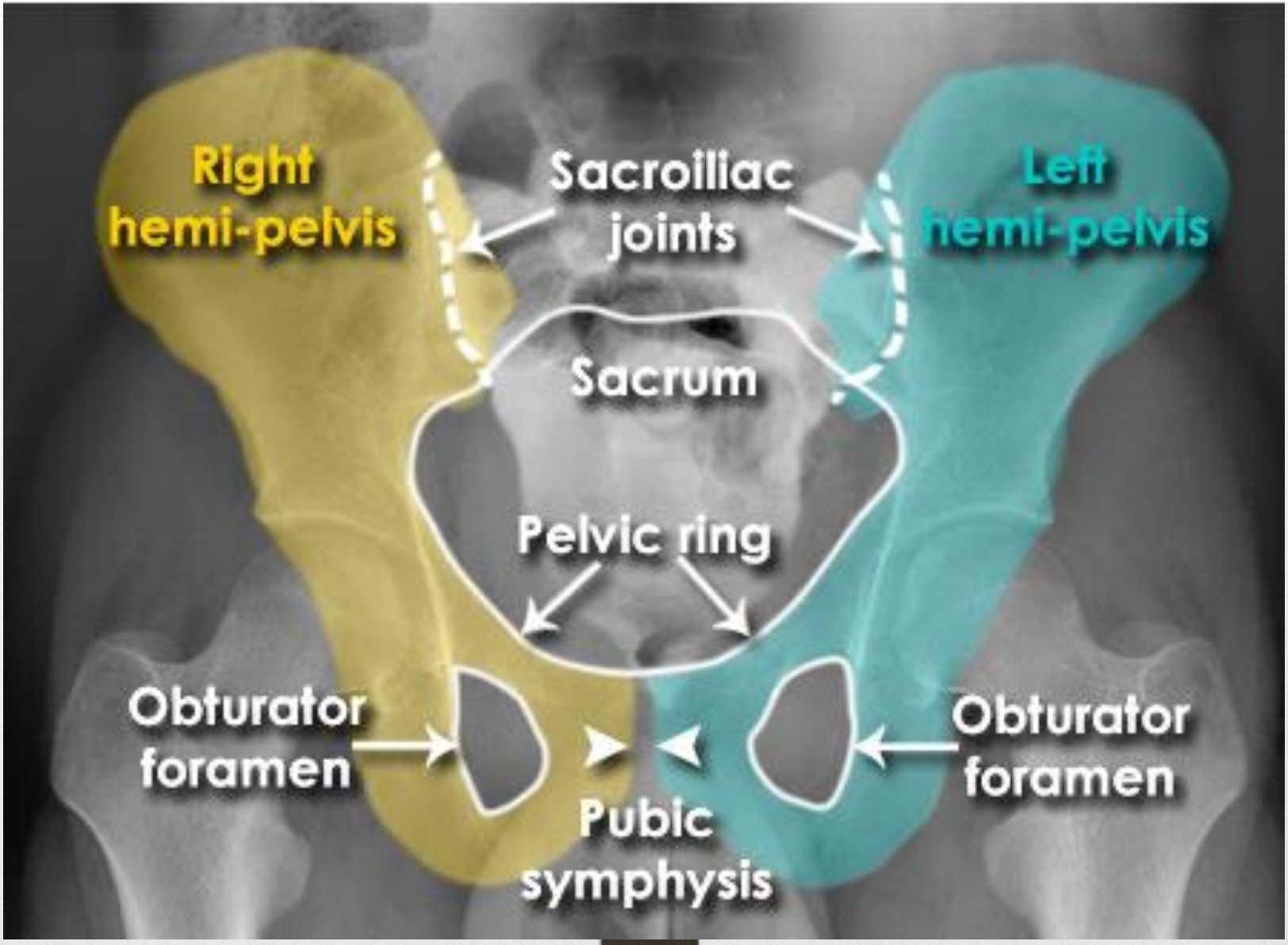
1) sacroiliac joint
في مكانه ولا مفصول
2) pelvic bone
جايز تكون مكسورة
3) symphysis pubis
جايز تكون مفصولة
4) hip joint (head in acetabulum)
shof ay dislocation aw ay 7aga mn el diseases of joints ..eg DDH, osteoarthritis

اول ما تلاقي صورة حوض ... يبقى هنبص على ٥ حاجات عشان مافييش حاجة تقع مننا ان شاء الله

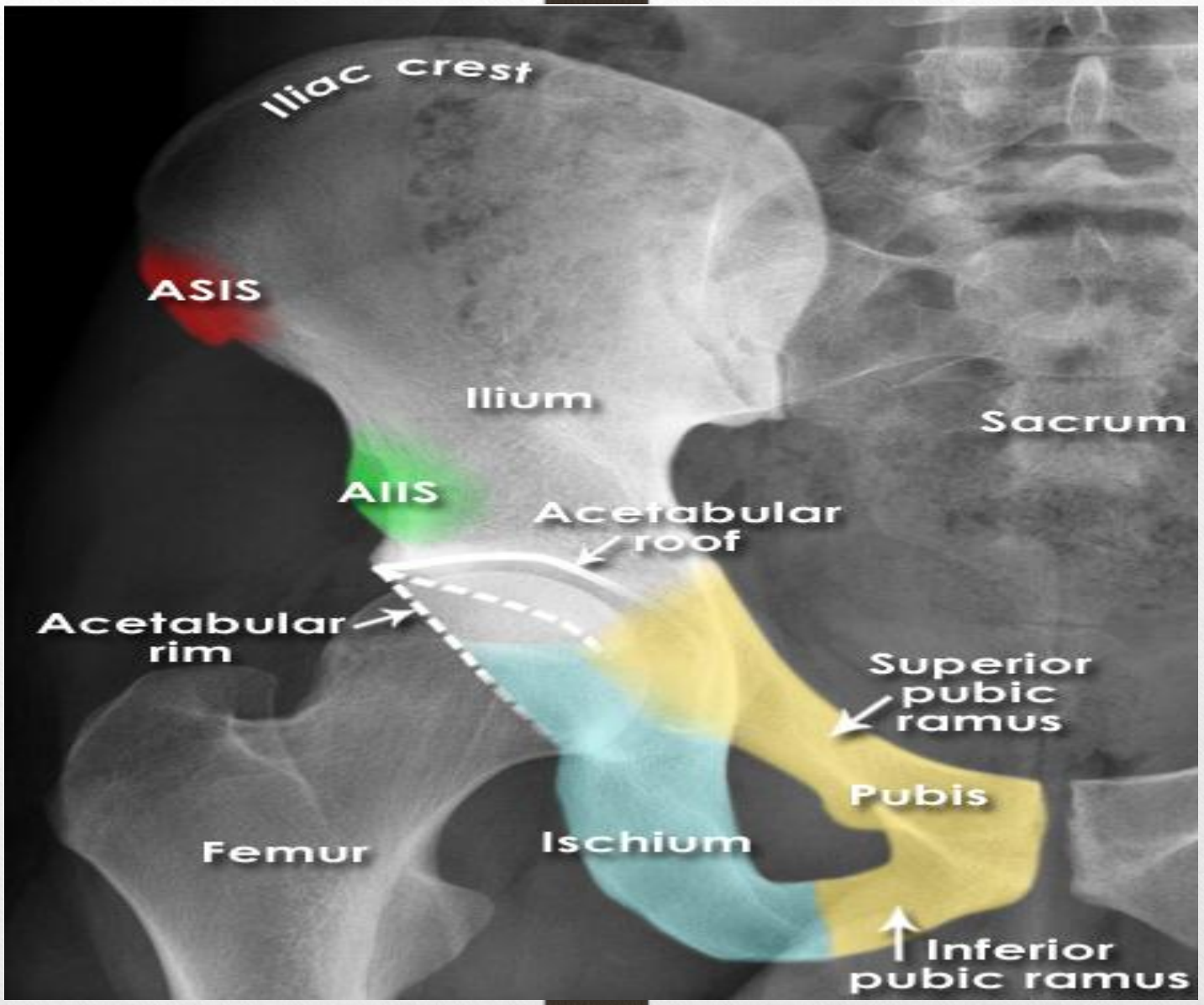


1) sacroiliac joint
في مكانه ولا مفصول
2) pelvic bone
جايز تكون مكسورة
3) symphysis pubis
جايز تكون مفصولة
4) hip joint (head in acetabulum)
shof ay dislocation aw ay 7aga mn el diseases of joints ..eg DDH, osteoarthritis
5) neck of femur
و دي لا يخلو منها امتحان . ركز كويس فيها

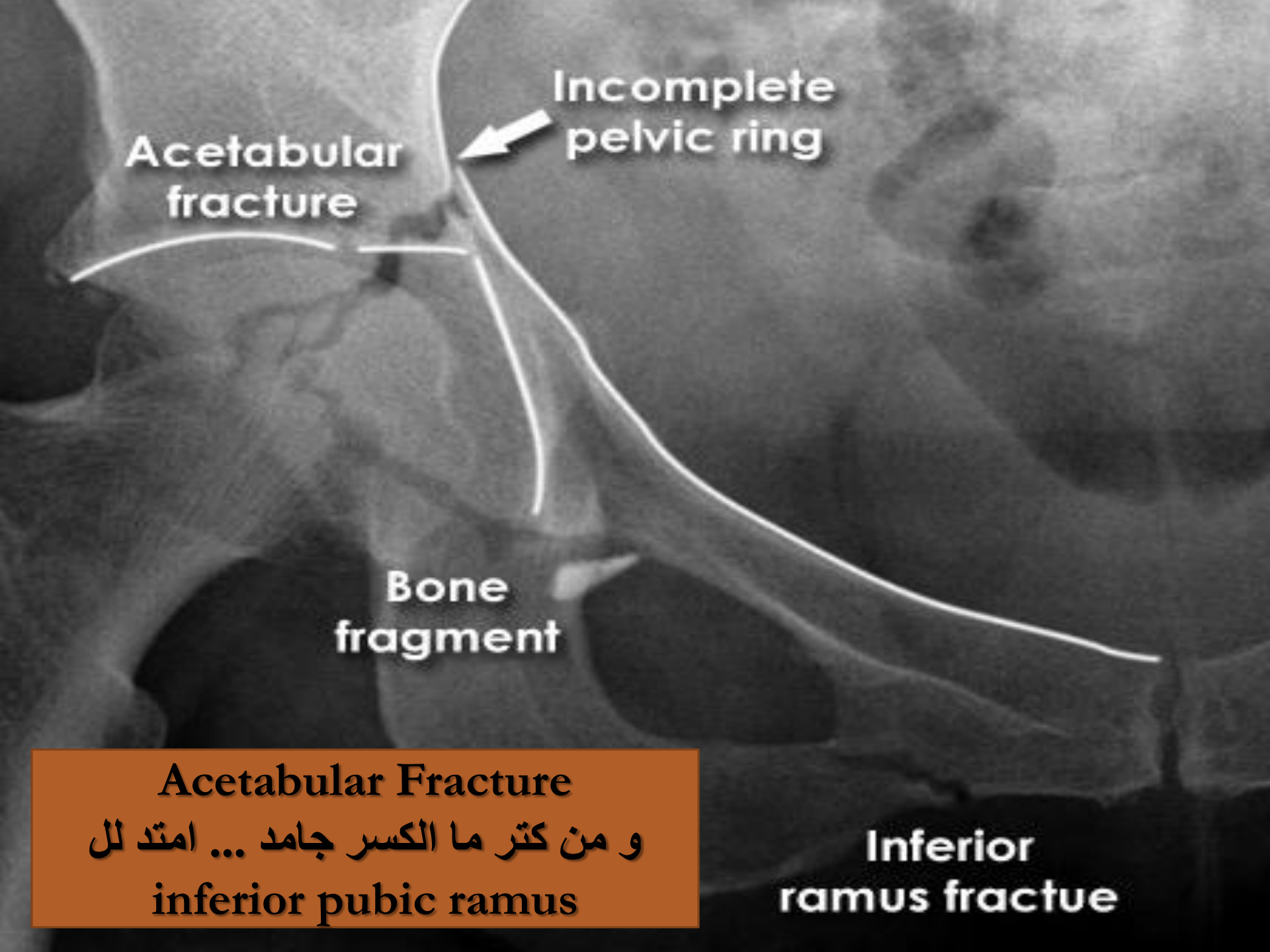



Right hemi-pelvis
Sacroiliac joints
Left hemi-pelvis
Sacrum
Pelvic ring
Obturator foramen
Obturator foramen
Pubic symphysis




Iliac crest
ASIS
Ilium
Sacrum
AIIS
Acetabular roof
Acetabular rim
Superior pubic ramus
Pubis
Femur
Ischium
Inferior pubic ramus


ايه دي ؟؟

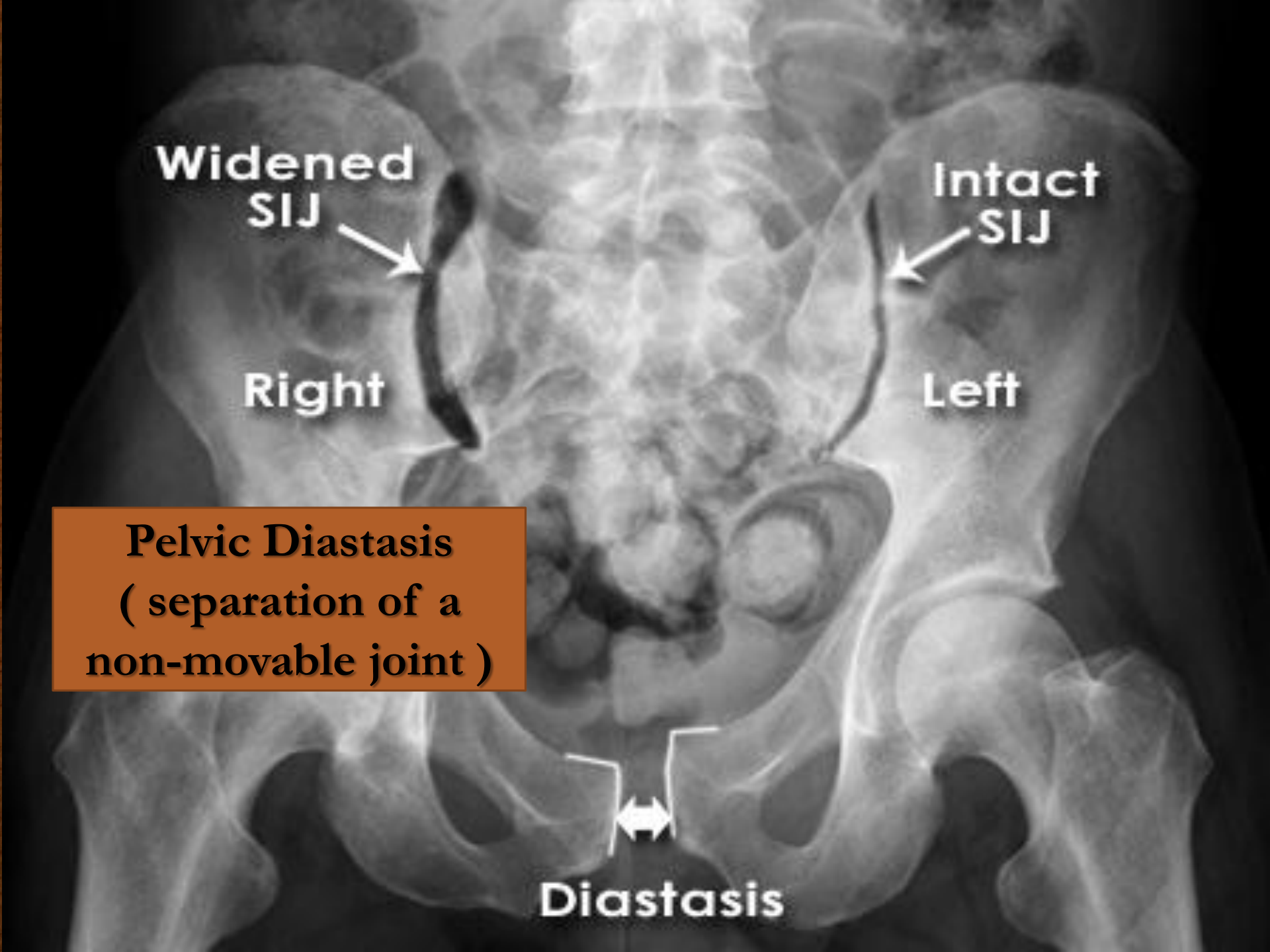


Acetabular Fracture

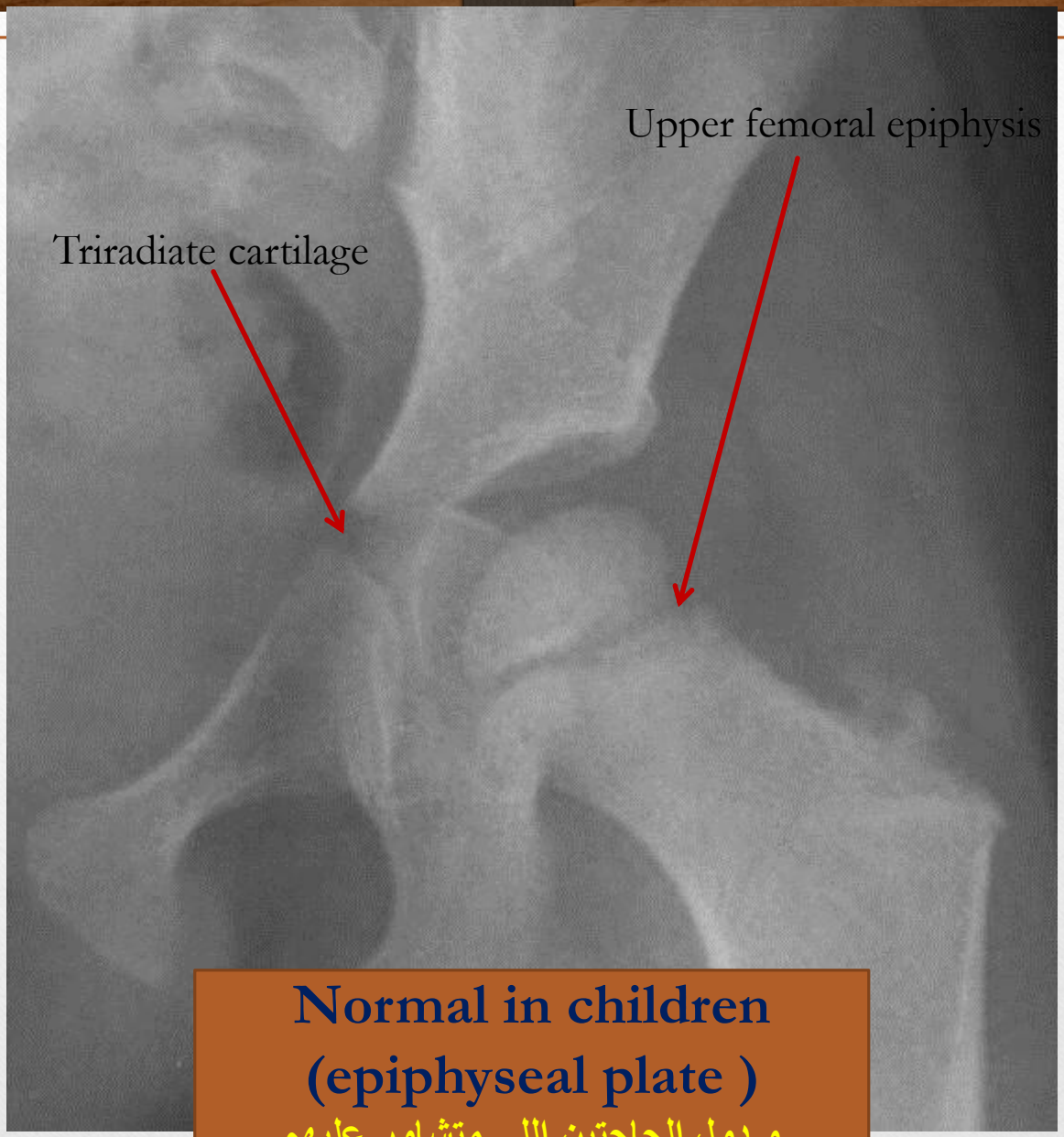
و من كتر ما الكسر جامد ... امتد لل

inferior pubic ramus


ايه دي ؟؟



Pelvic Diastasis
(separation of a non-movable joint)

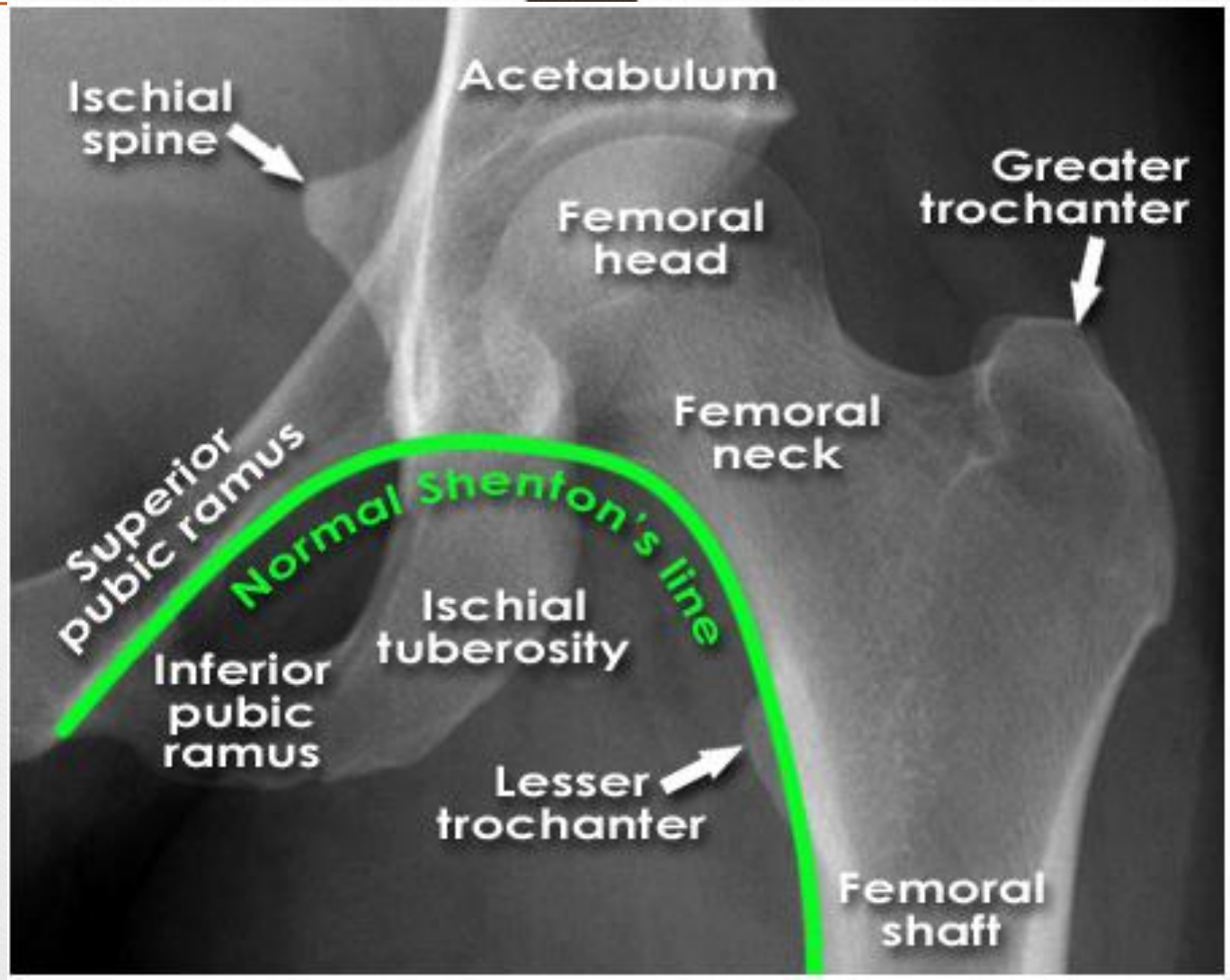


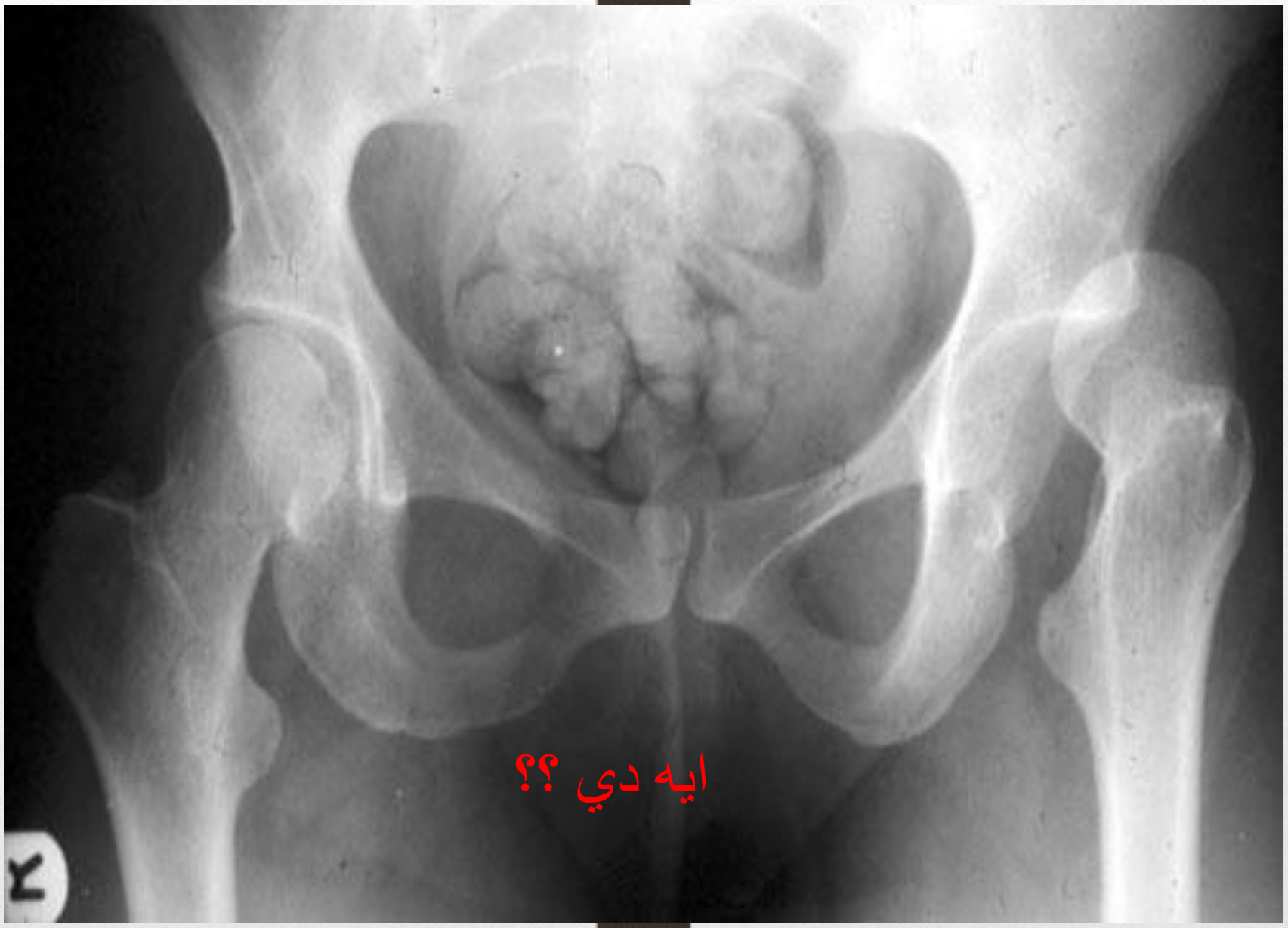
Normal in children (epiphyseal plate)

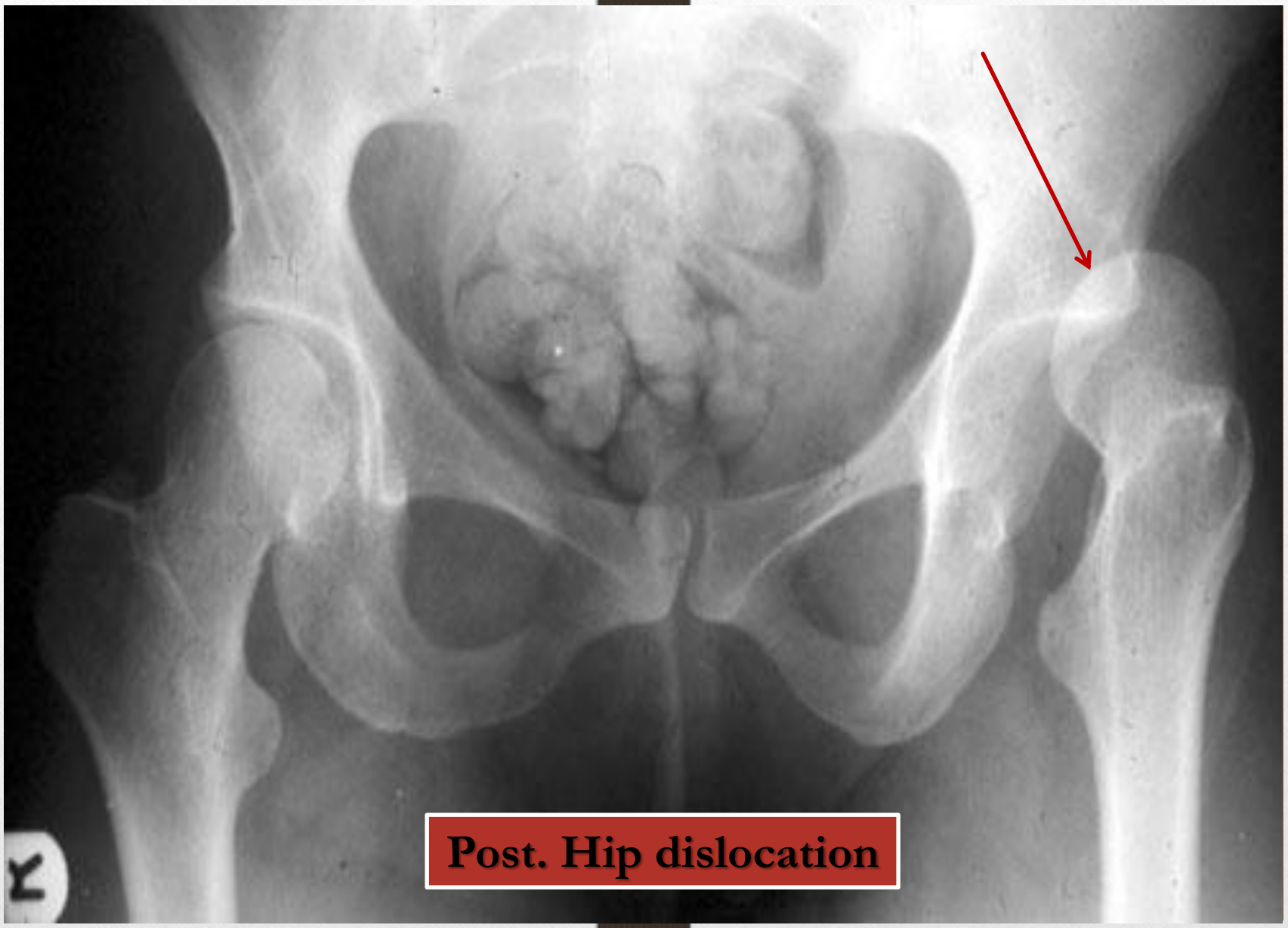
و دول الحاجتين اللي متشاور عليهم



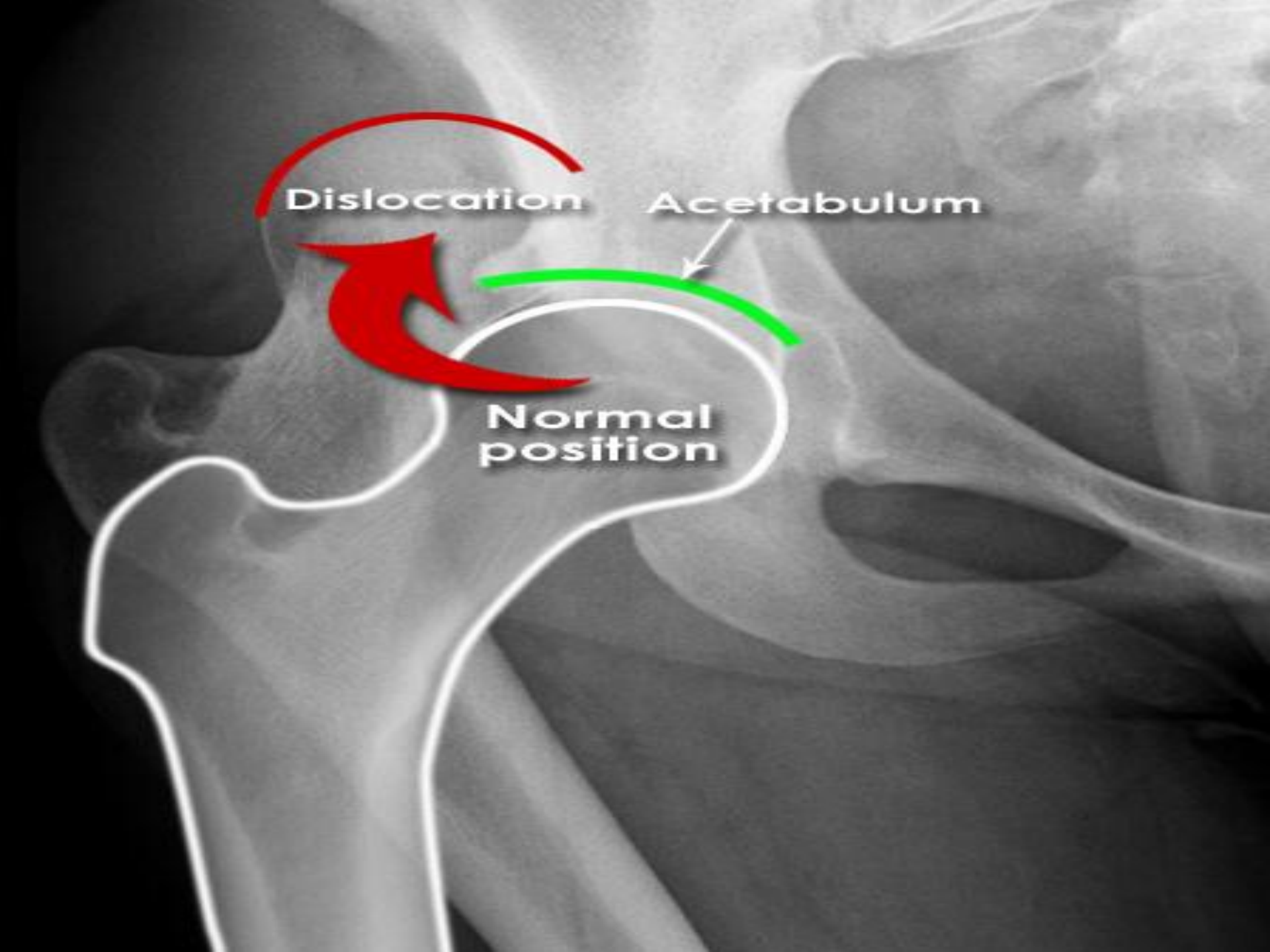
Hip Anatomy

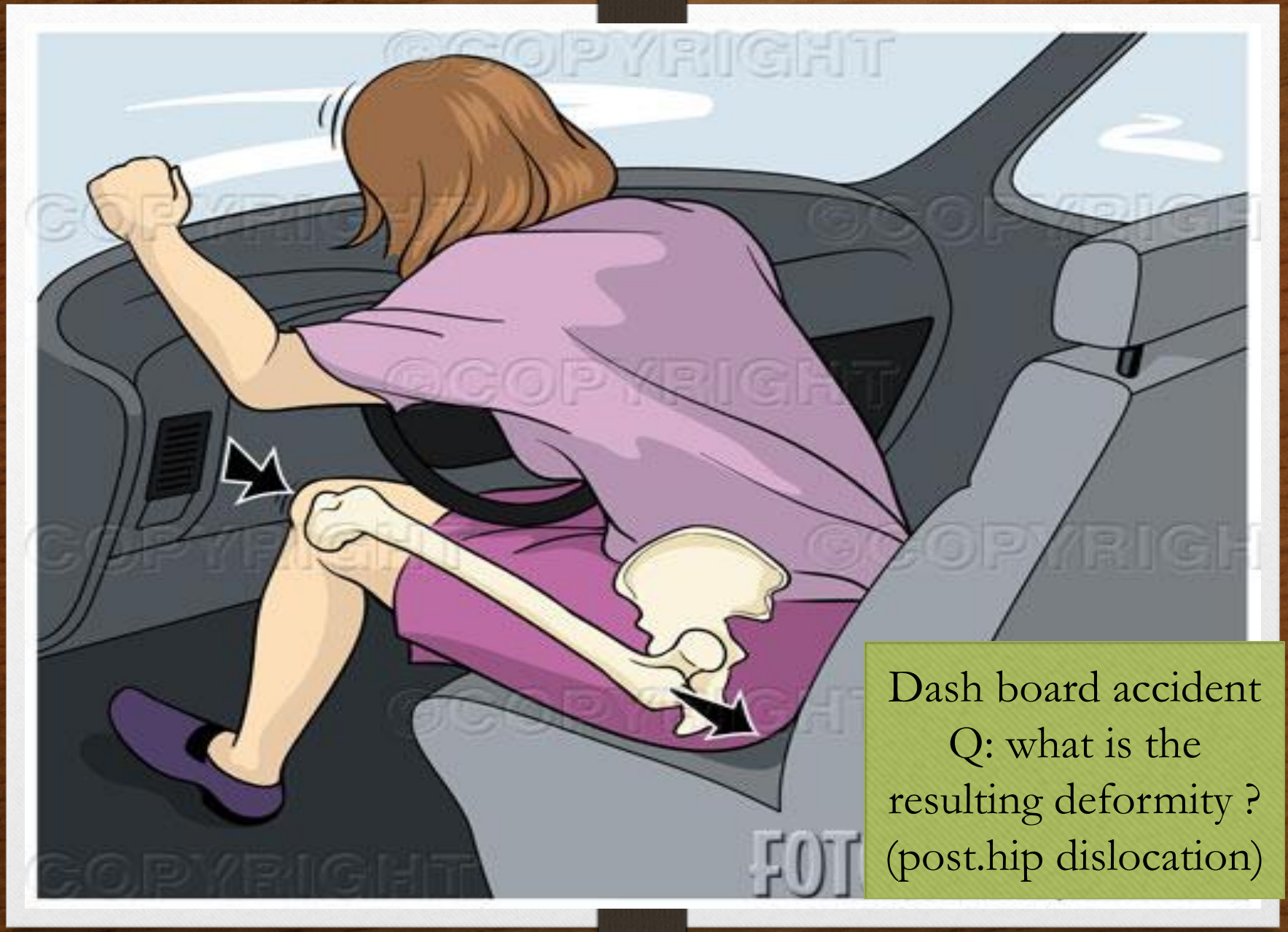

Ischial spine
Acetabulum
Greater trochanter
Femoral head
Femoral neck
Superior pubic ramus
Normal Shenton's line
Ischial tuberosity
Inferior pubic ramus
Lesser trochanter
Femoral shaft


ايه دي ؟؟


Post. Hip dislocation

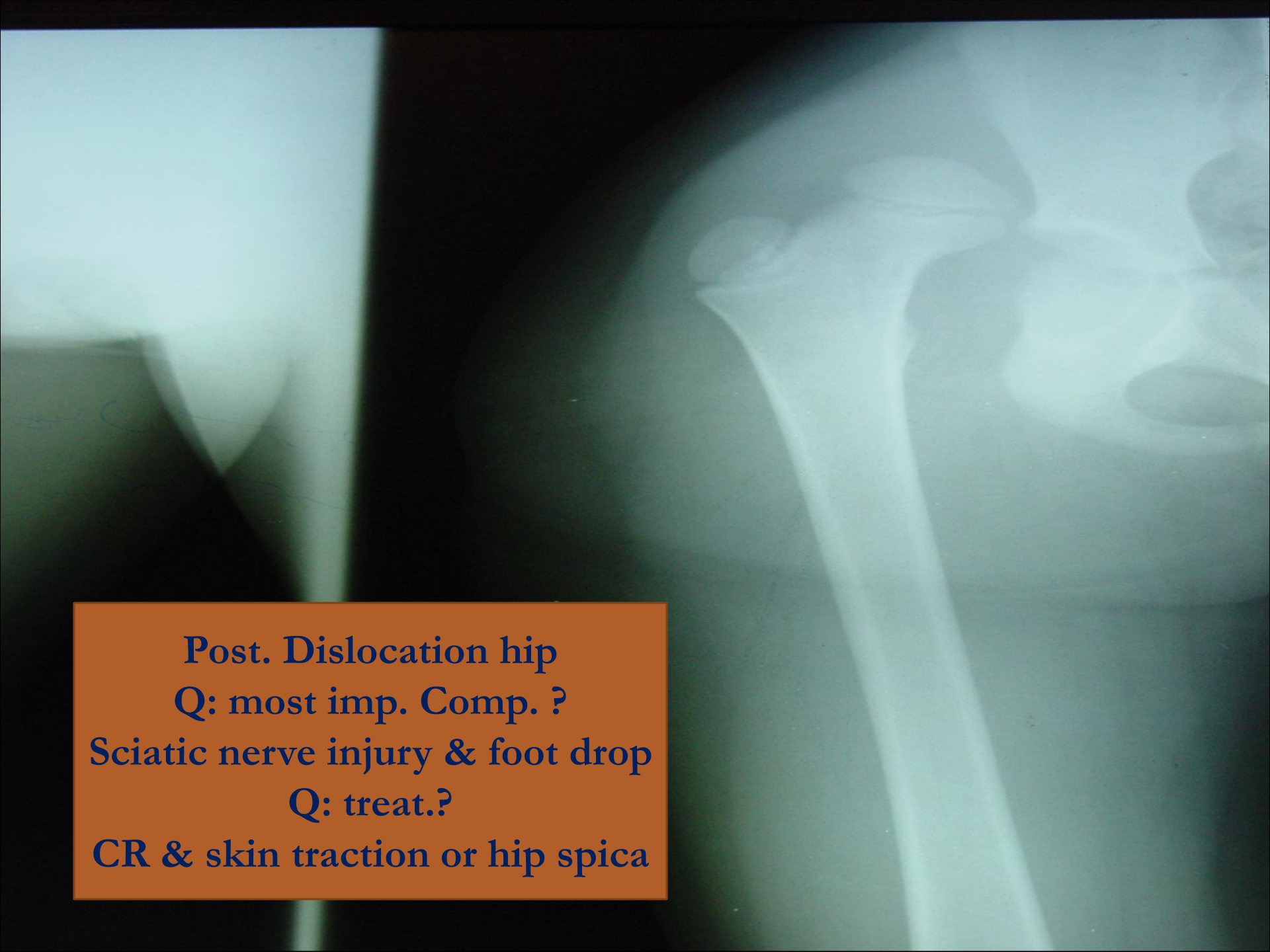


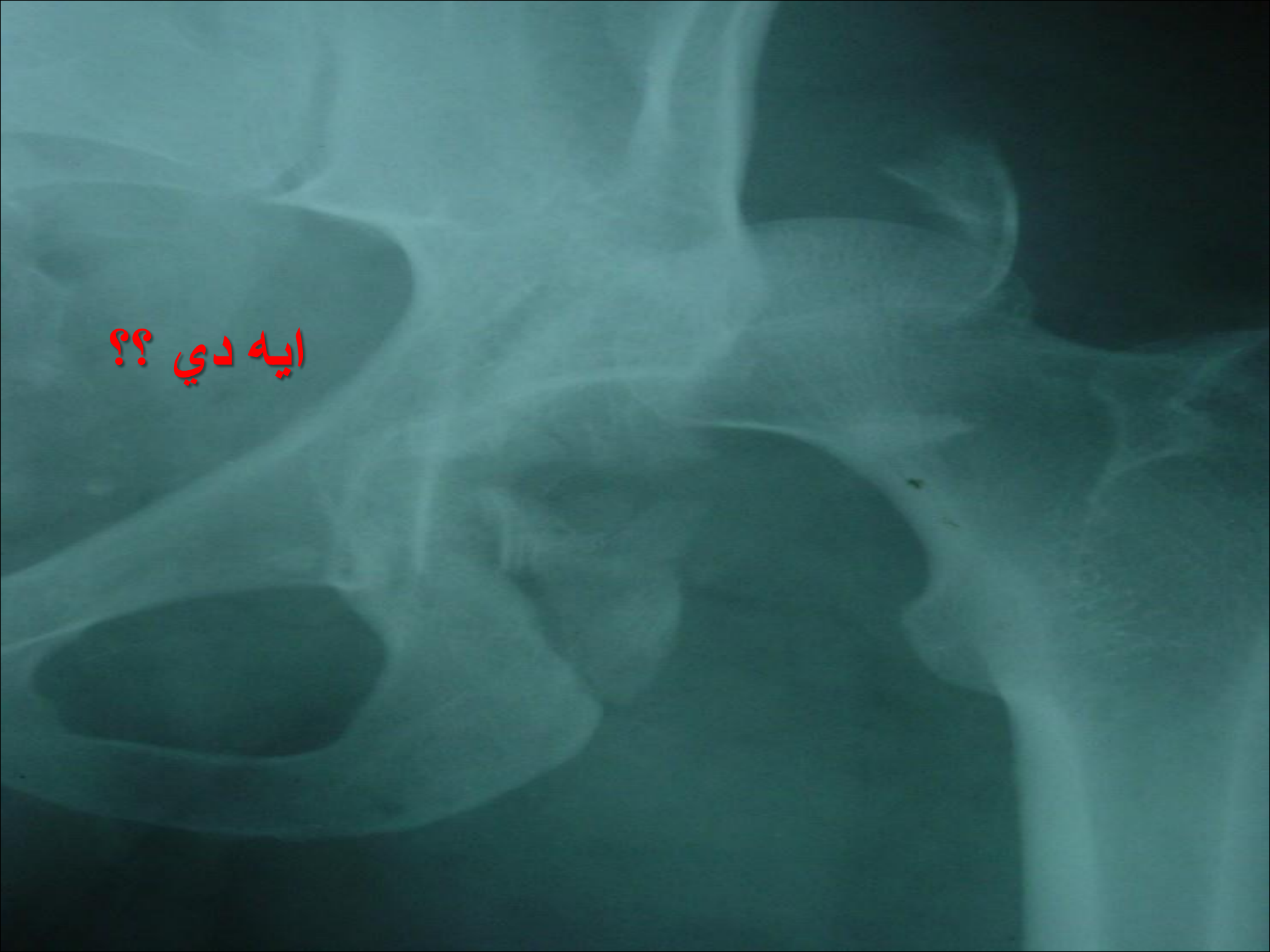

Dislocation
Acetabulum
Normal position


Dash board accident
Q: what is the resulting deformity ?
(post.hip dislocation)



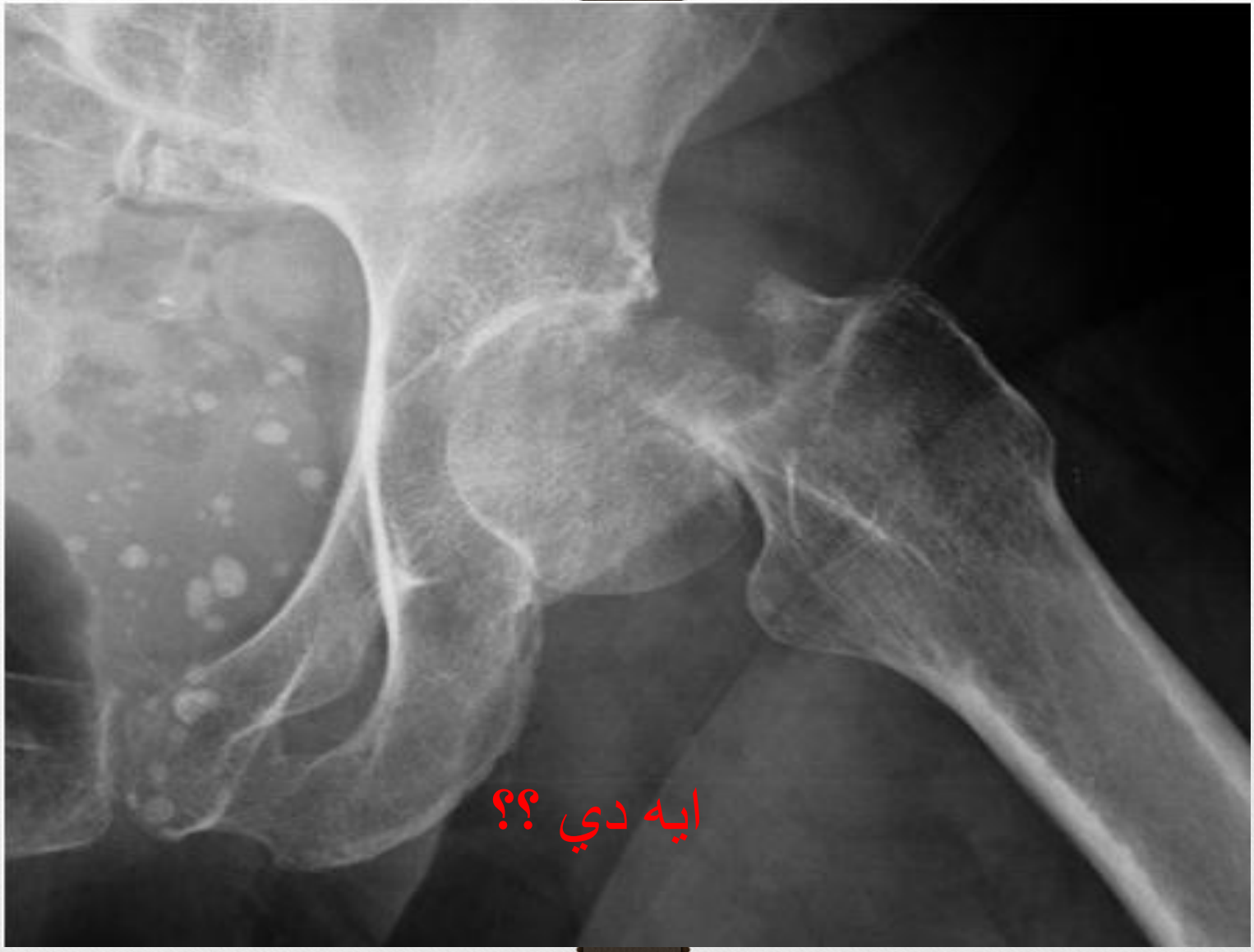
Q: diagnosis?
(post. Hip dislocation)
Q: mention 4 deformities ?
Flexion, adduction, internal rotation & shortening of the Rt limb
(our exam)

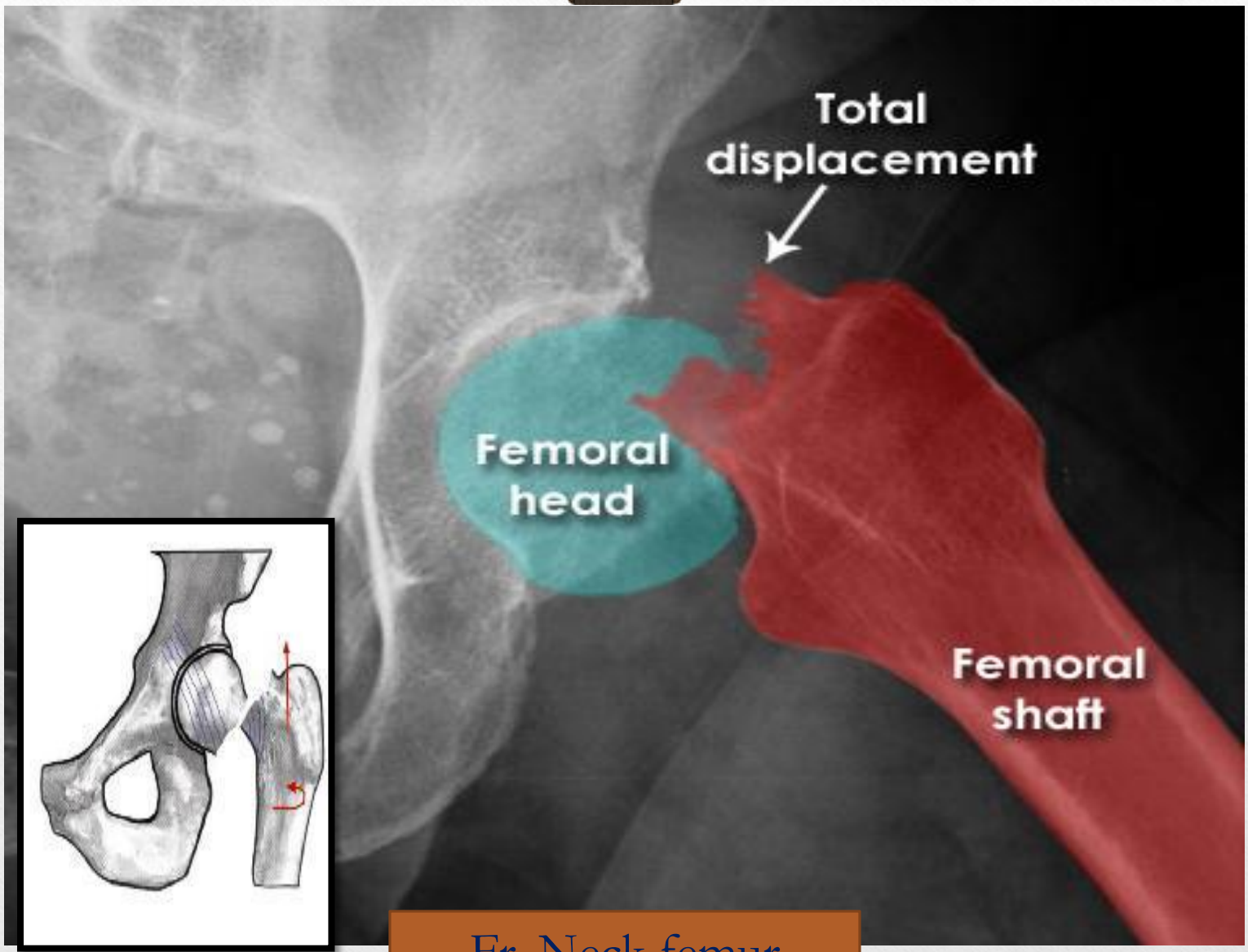

Post. Dislocation hip
Q: most imp. Comp. ?
Sciatic nerve injury & foot drop
Q: treat.?
CR & skin traction or hip spica


ايه دي ؟؟



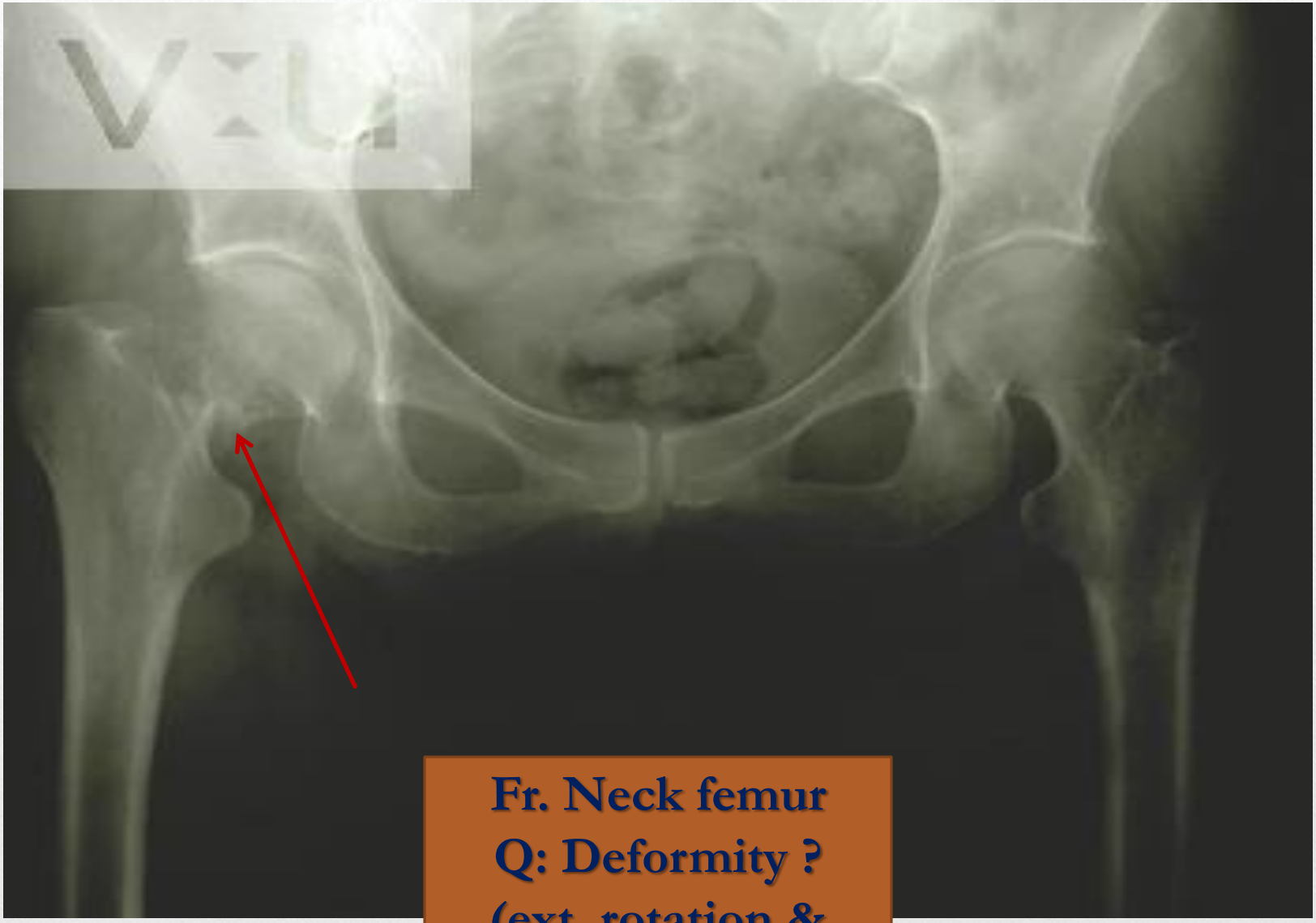
fr. Acetbulum
& hip dislocation
Q: treat. ?
(CR, traction for 6 weeks & non-weight bearing for 6 weeks)


ايه دي ؟؟

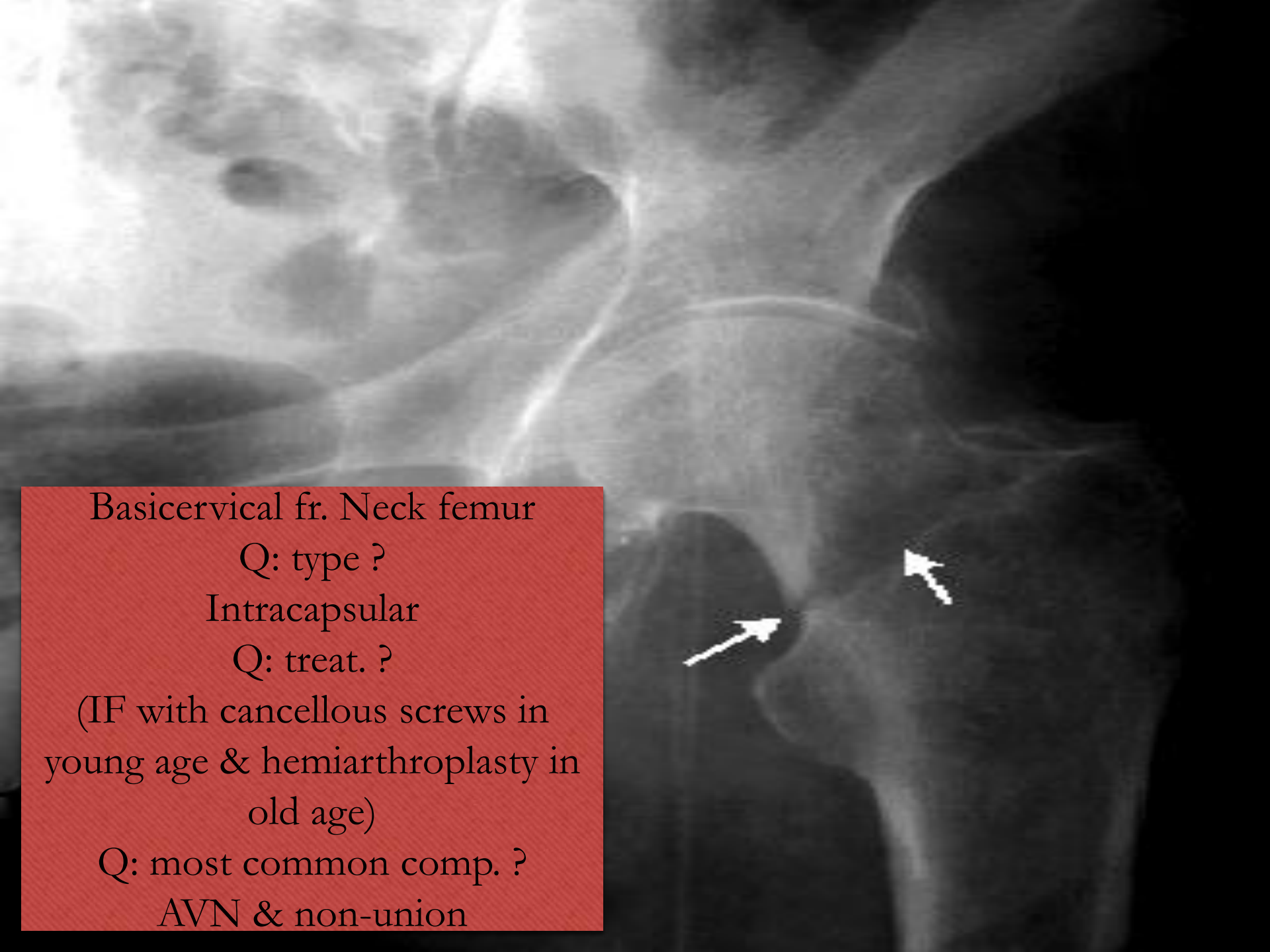


Fr. Neck femur


ايه دي ؟؟



Fr. Neck femur
Q: Deformity ?
(ext. rotation & shortening)



Basicervical fr. Neck femur

Q: type ?

Intracapsular

Q: treat. ?

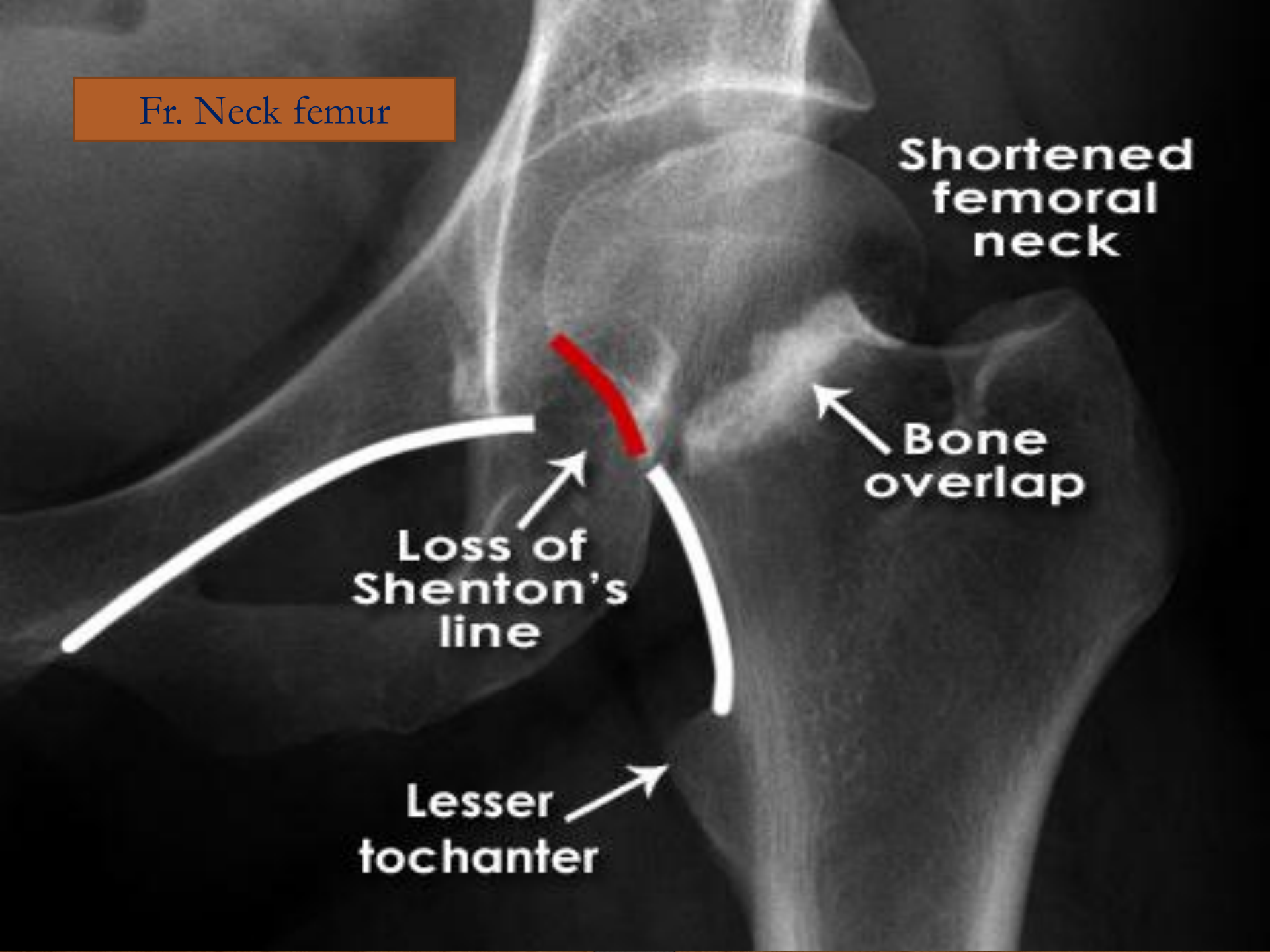
(IF with cancellous screws in young age & hemiarthroplasty in old age)

Q: most common comp. ?

AVN & non-union

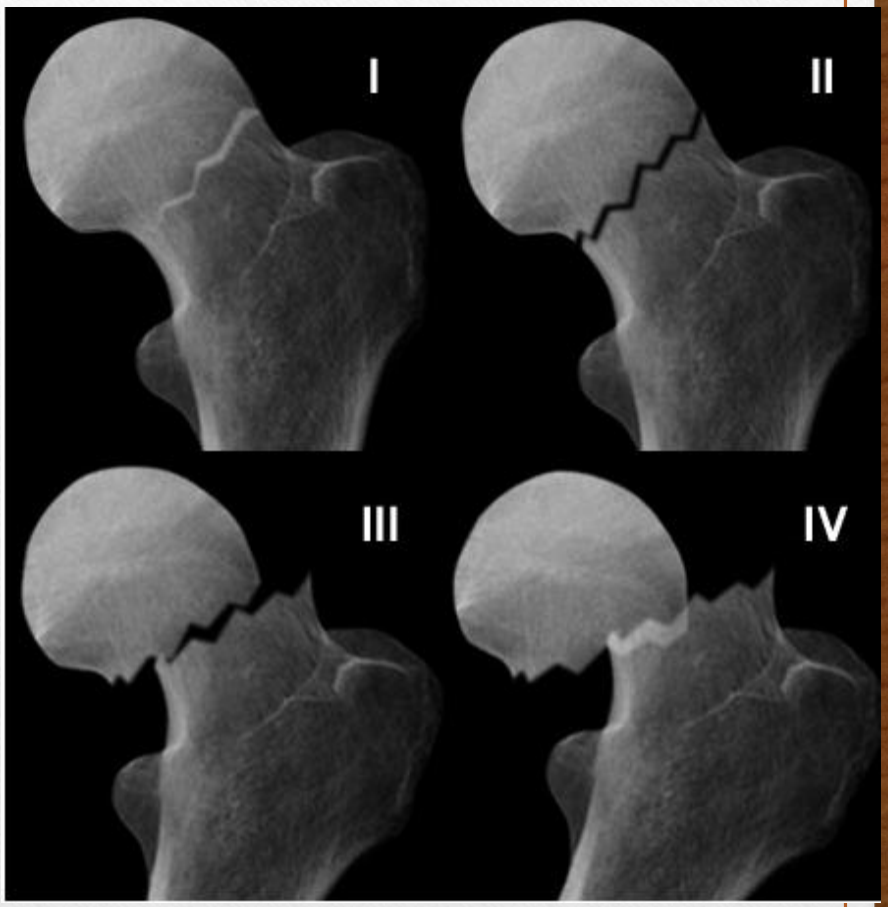

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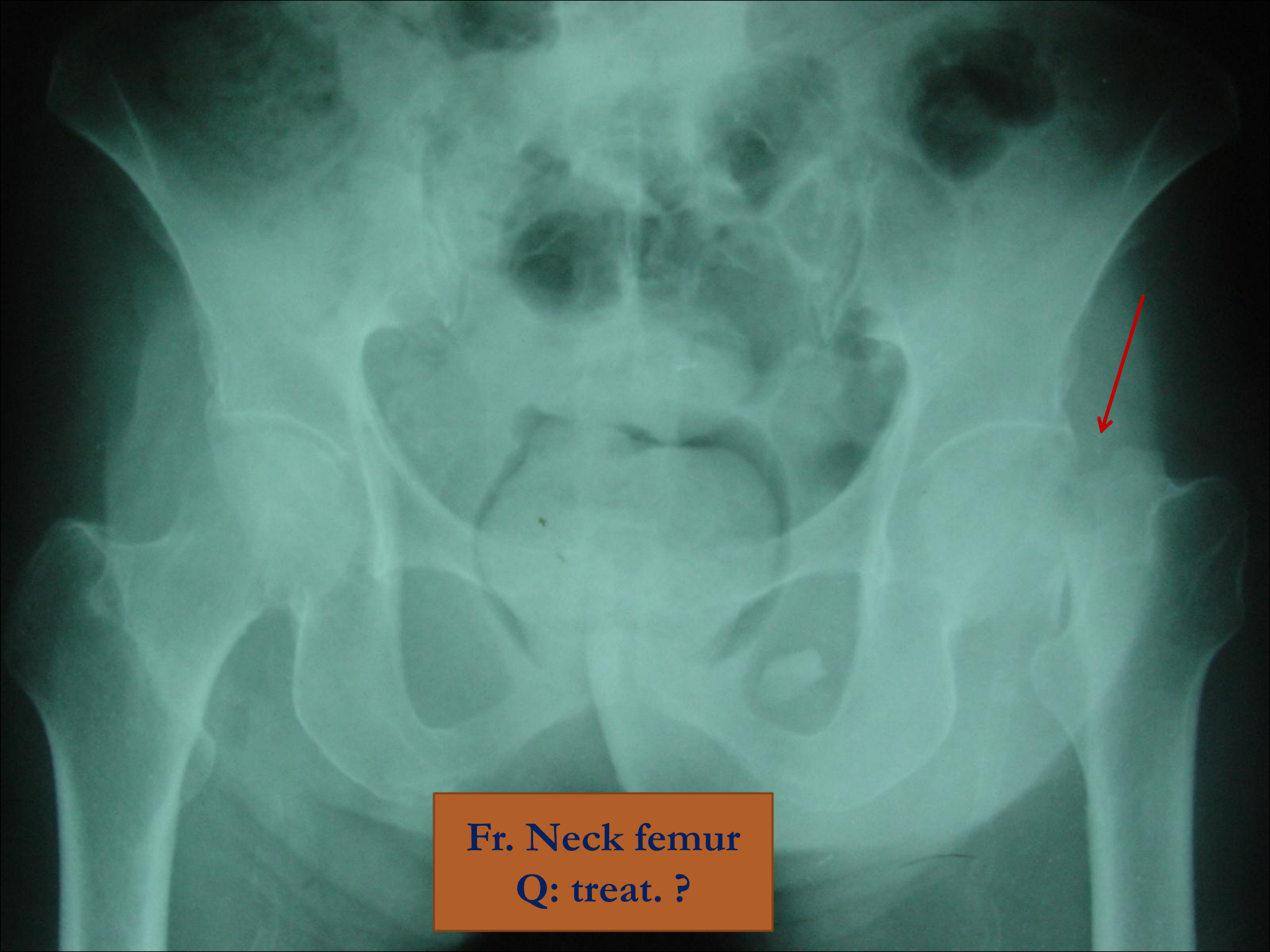
Fr. Neck femur

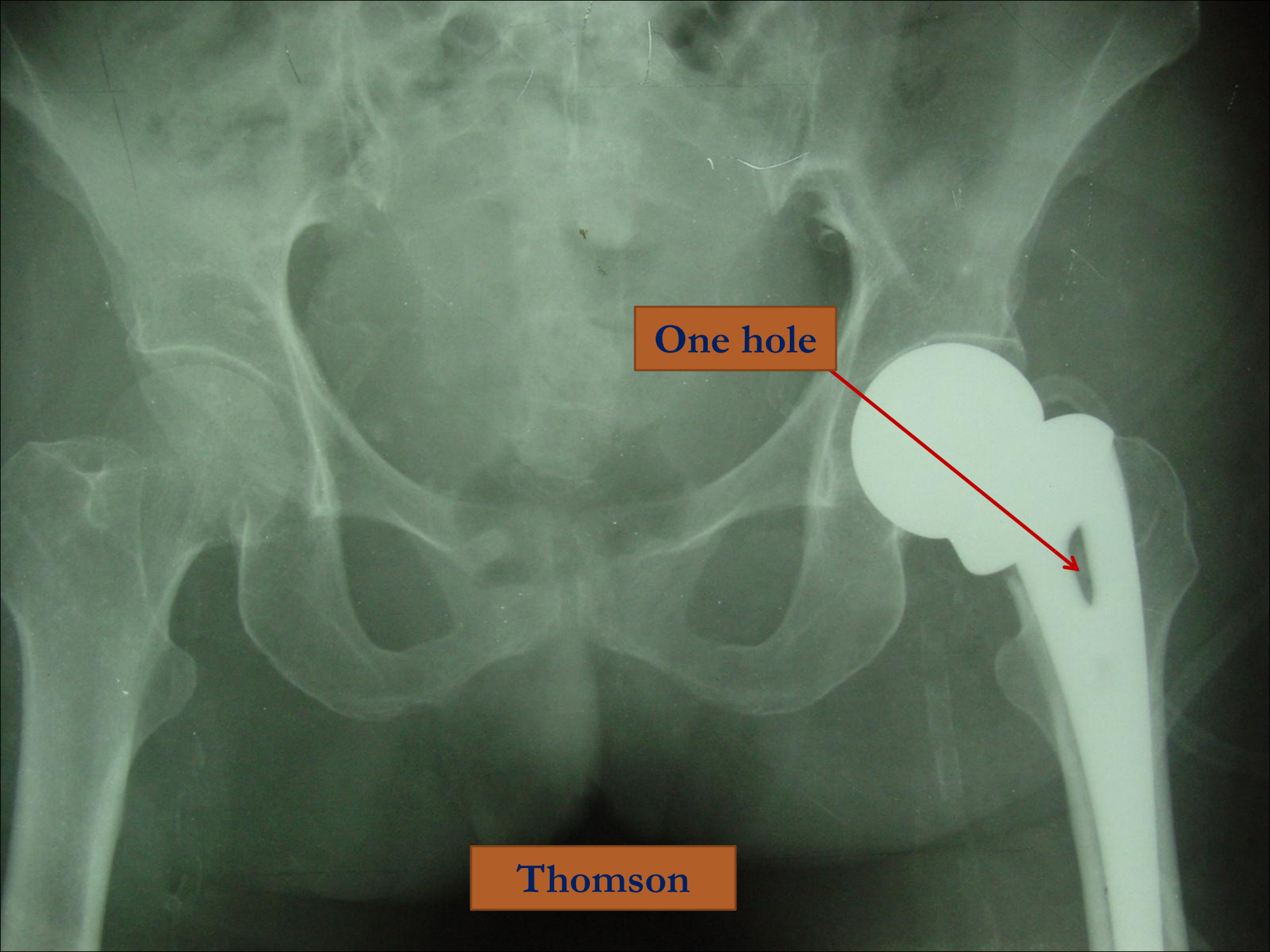


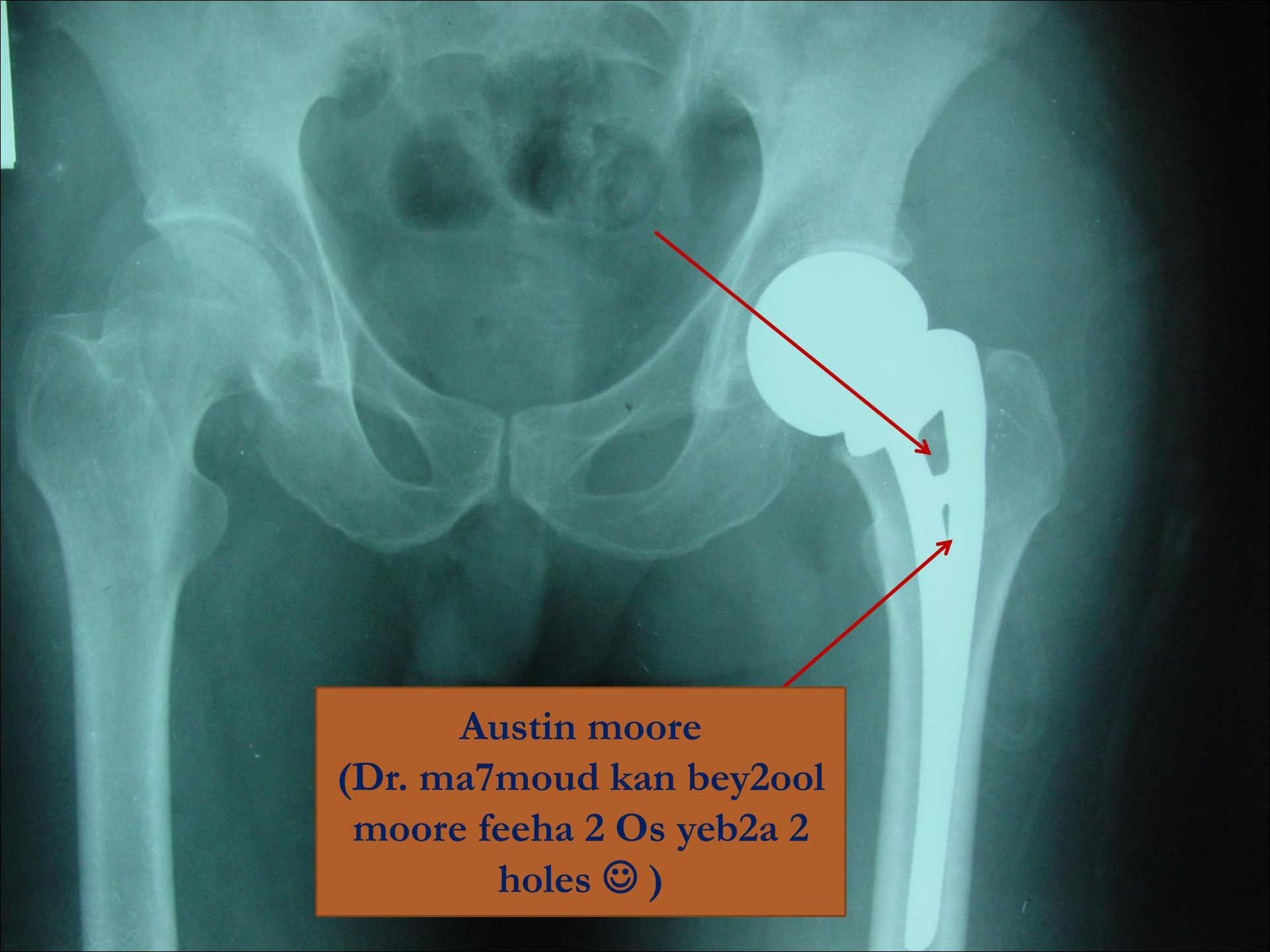
de ba2a el Garden classification of Fr. Neck femur

I) incomplete fracture
II) complete undisplaced
III) complete – partially displaced
IV) complete – totally displaced

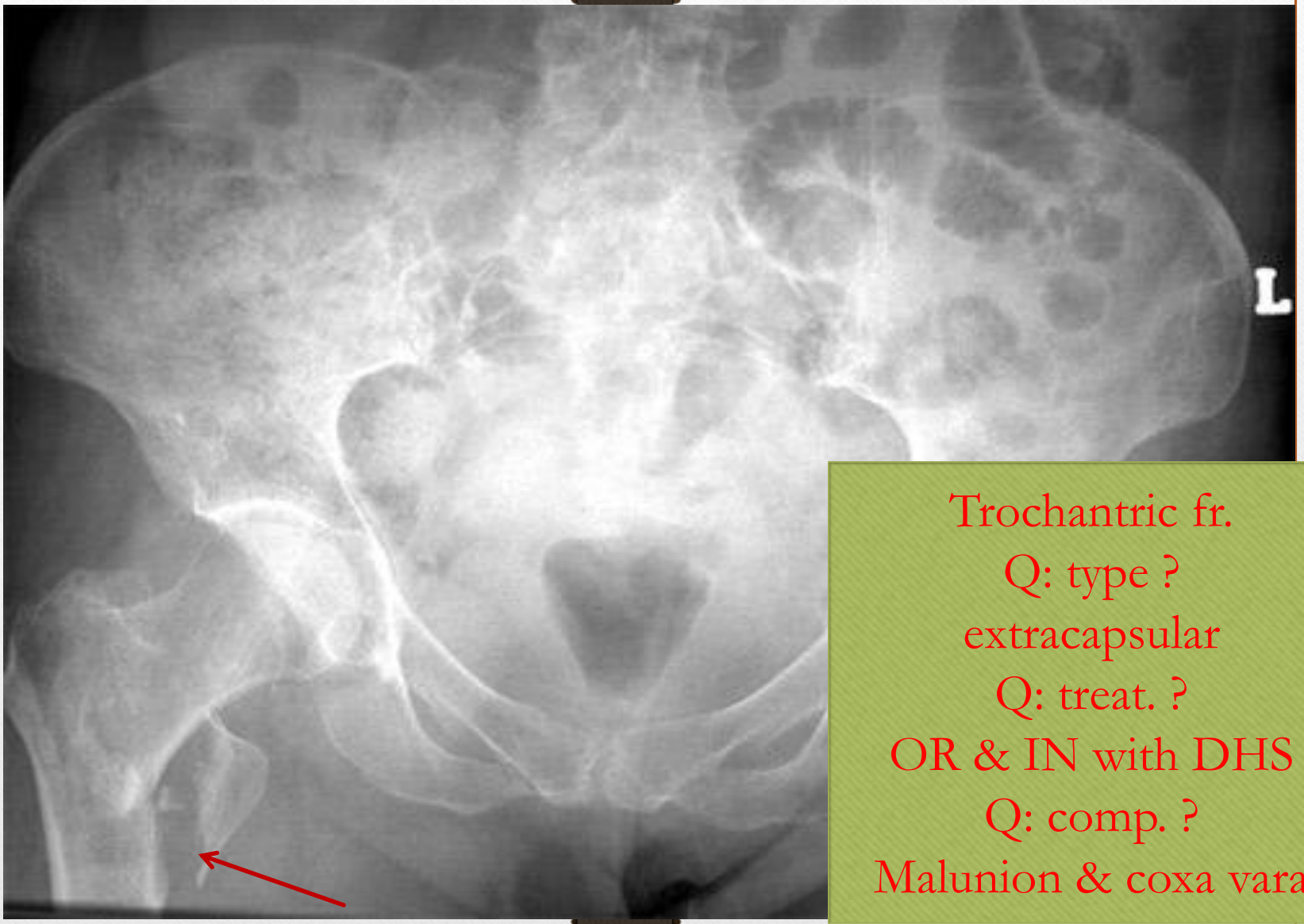



Fr. Neck femur
Q: treat. ?


One hole
Thomson


Austin moore
(Dr. ma7moud kan bey2ool moore feeha 2 Os yeb2a 2 holes ☺)


L
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Trochantric fr.

Q: type ?

extracapsular

Q: treat. ?

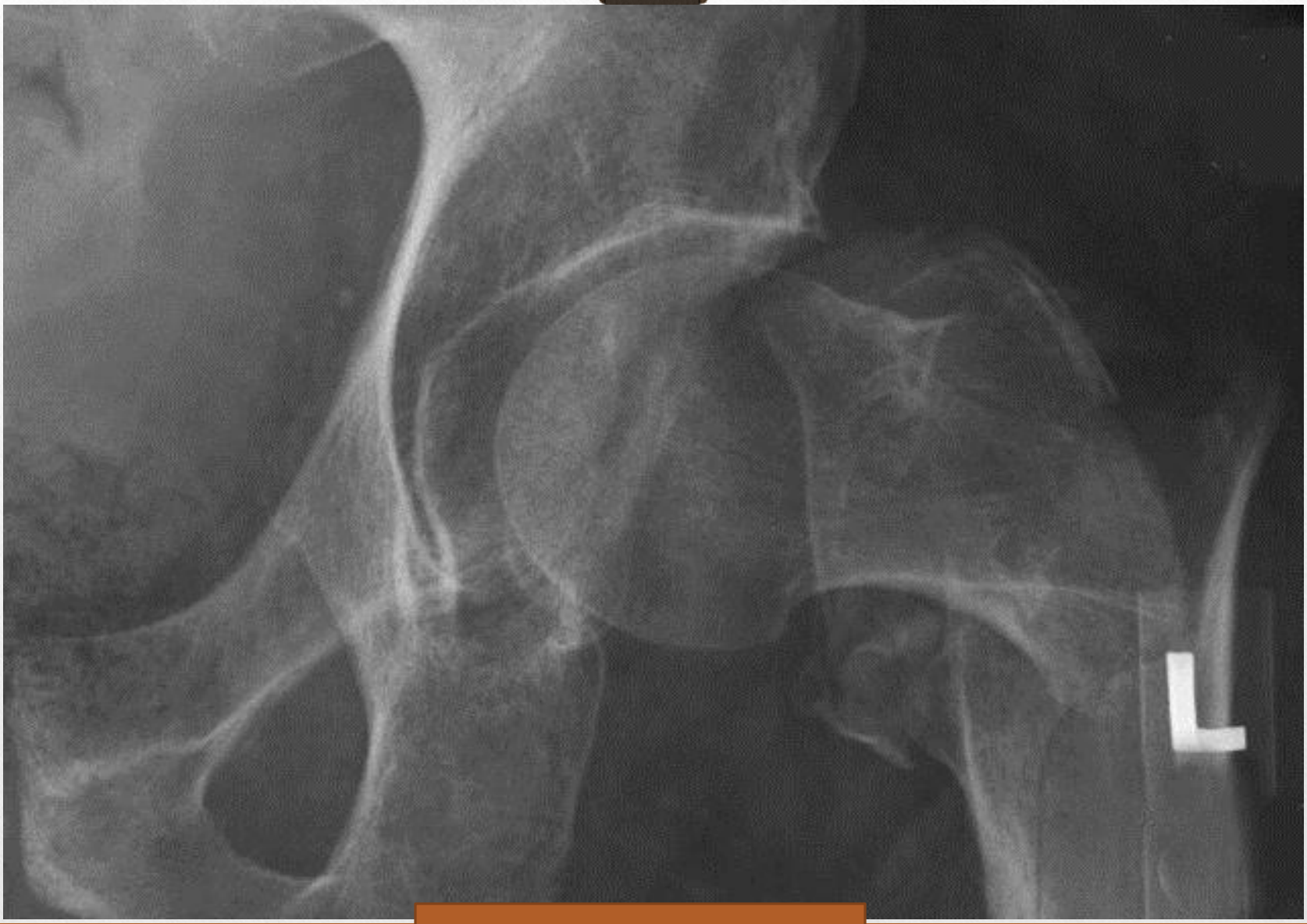
OR & IN with DHS

Q: comp. ?

Malunion & coxa vara



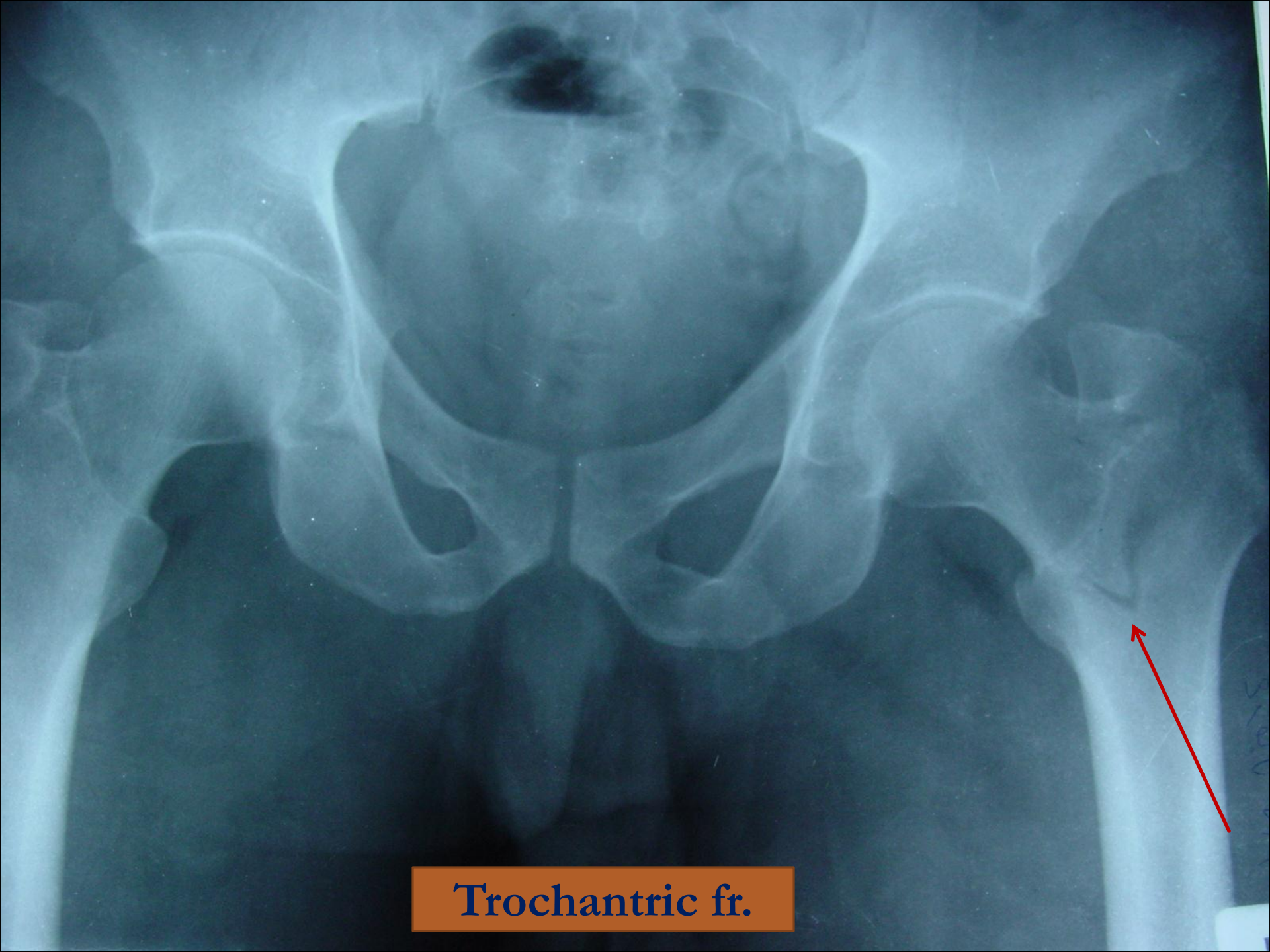
DHS

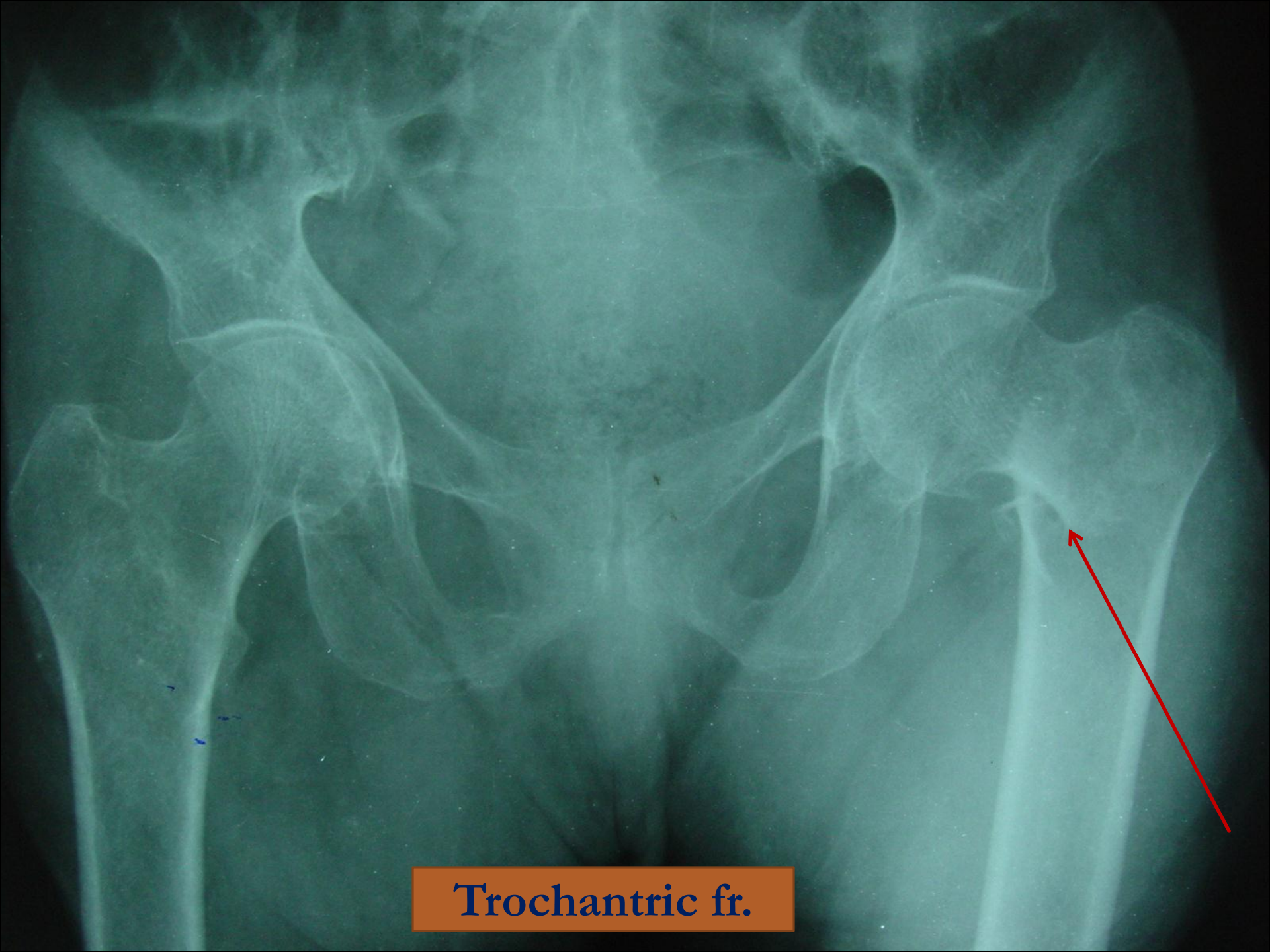


Trochantric fr.

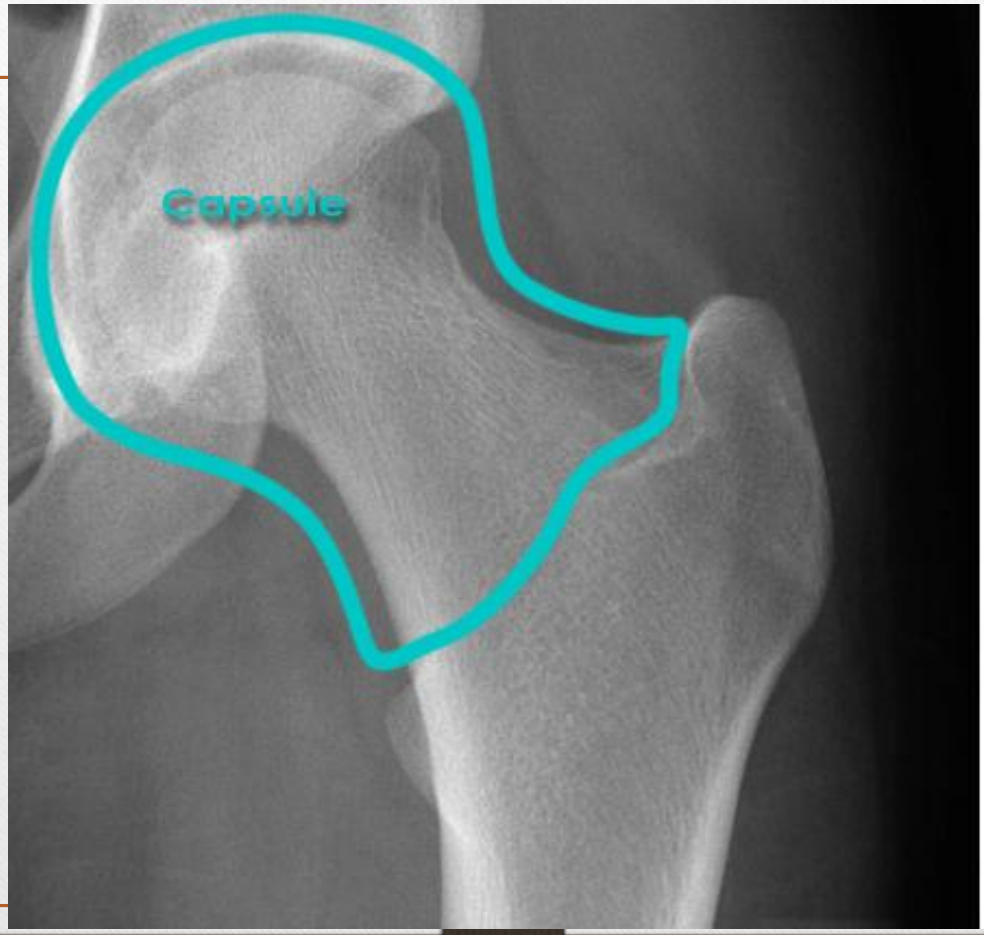


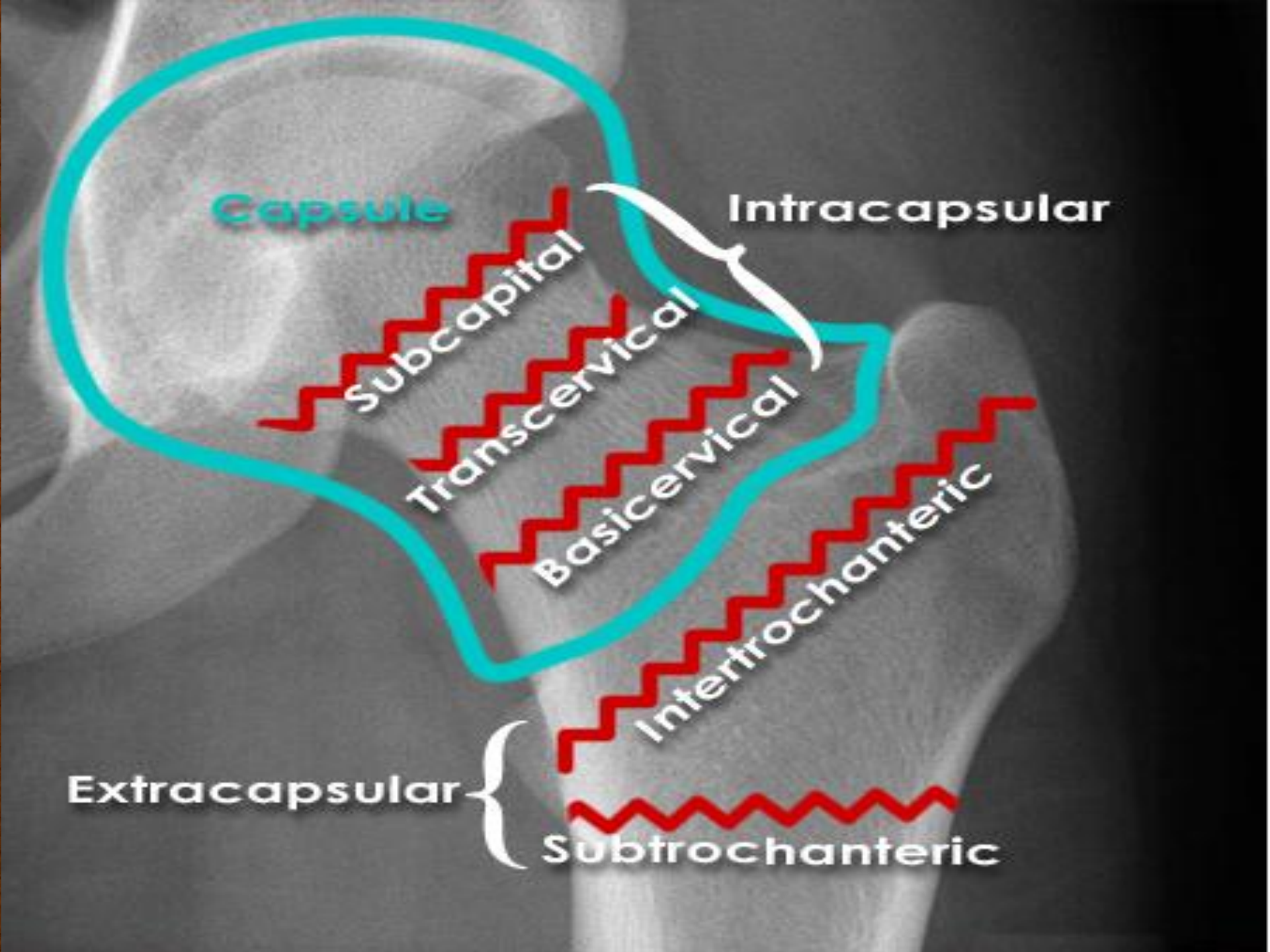
Trochantric fr.

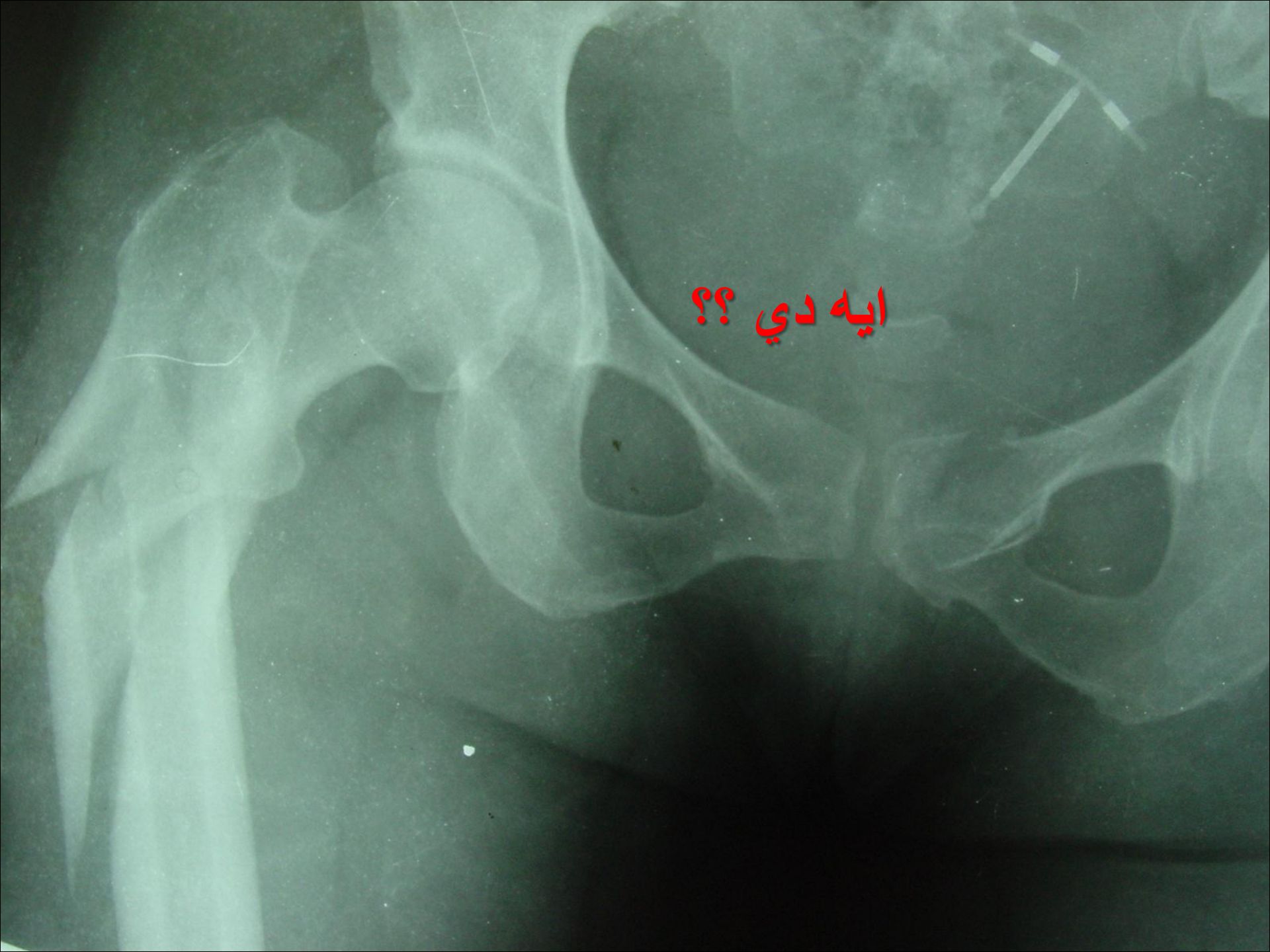

Trochantric fr.

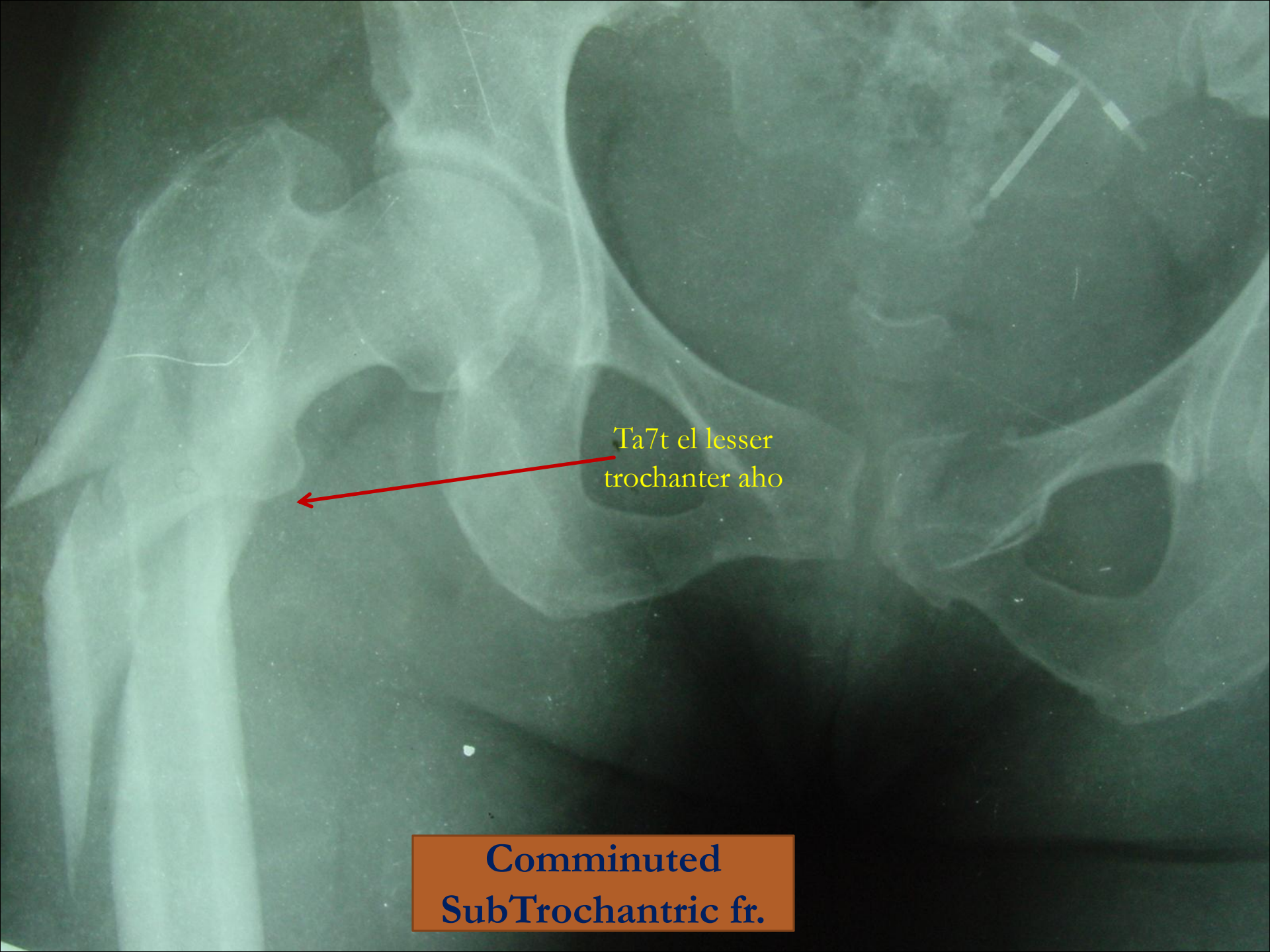

Trochantric fr.

el far2 been fracture neck femur (Intracapsular) and trochanteric fracture (extracapsular)
el x ray da bywada7 makan el capsule belzabt

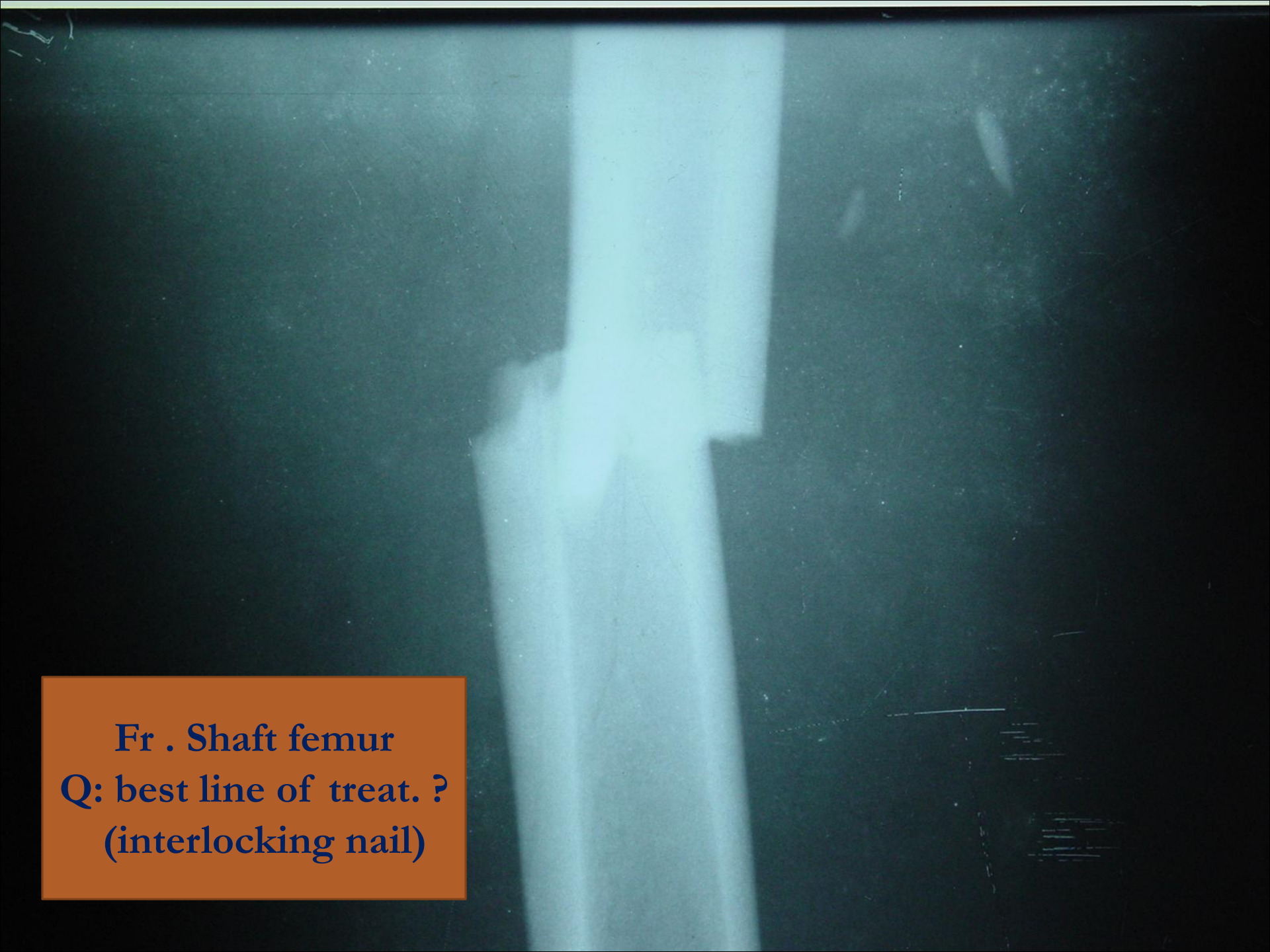



Capsule
Intracapsular
Subcapital
Transcervical
Basicervical
Intertrochanteric
Extracapsular
Subtrochanteric


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Ta7t el lesser
trochanter aho
Comminuted
SubTrochantric fr.


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Fr . Shaft femur
Q: best line of treat. ?
(interlocking nail)

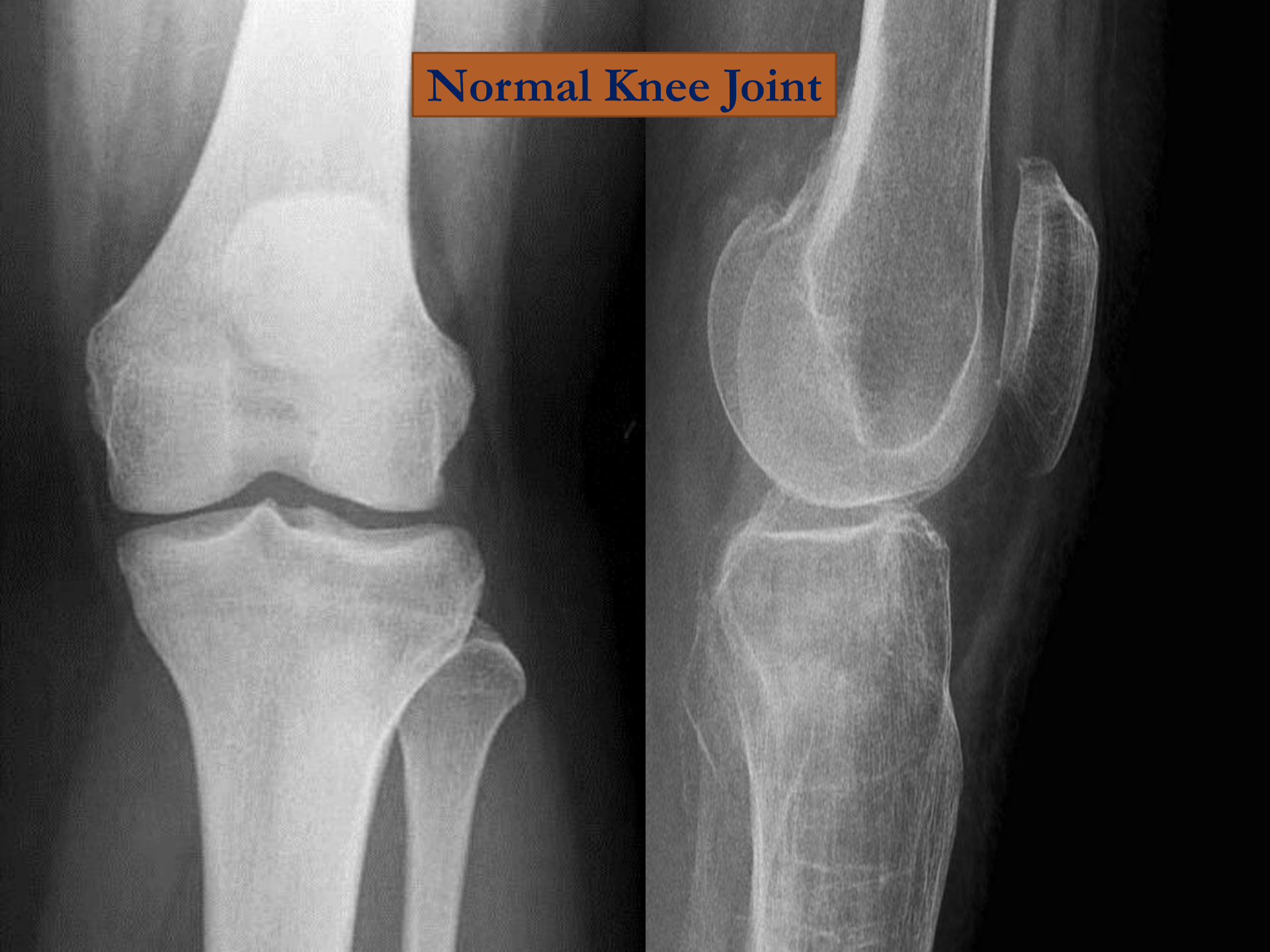

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Supracondylar fr. Q: treat. ?
DCS

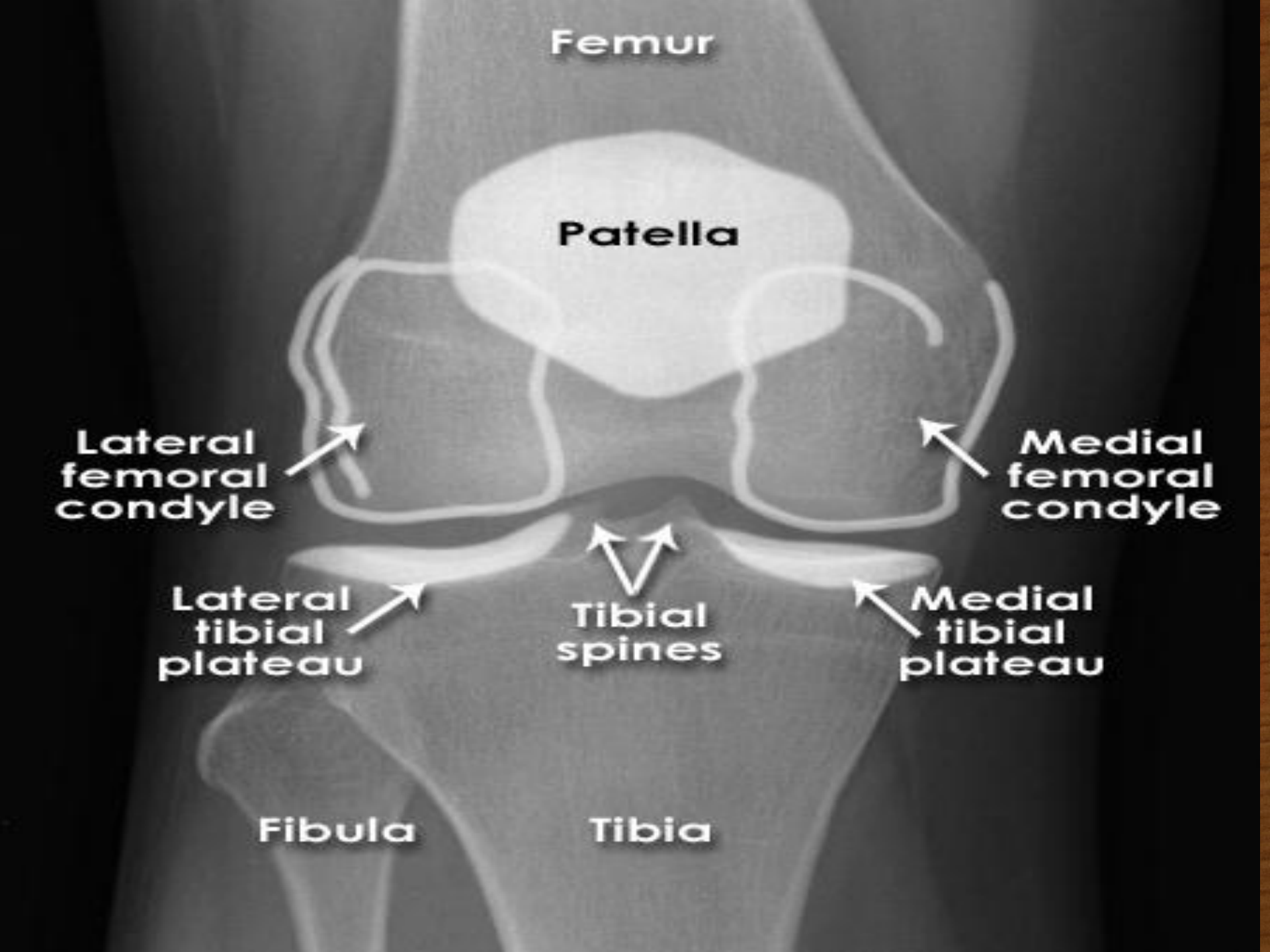
KNEE & LEG


Normal Knee Joint

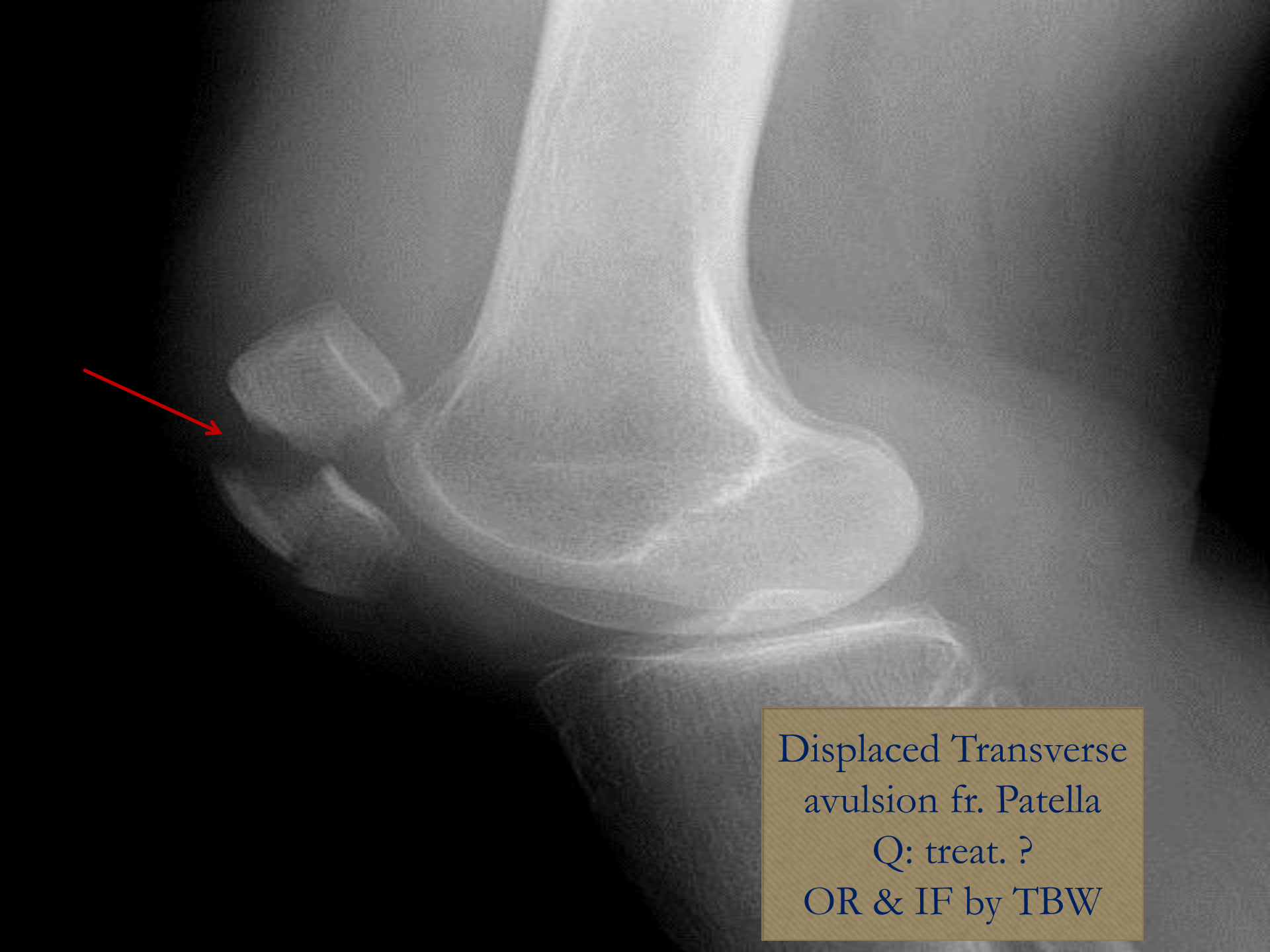


Normal Knee joint




Femur
Patella
Lateral femoral condyle
Medial femoral condyle
Lateral tibial plateau
Tibial spines
Medial tibial plateau
Fibula
Tibia


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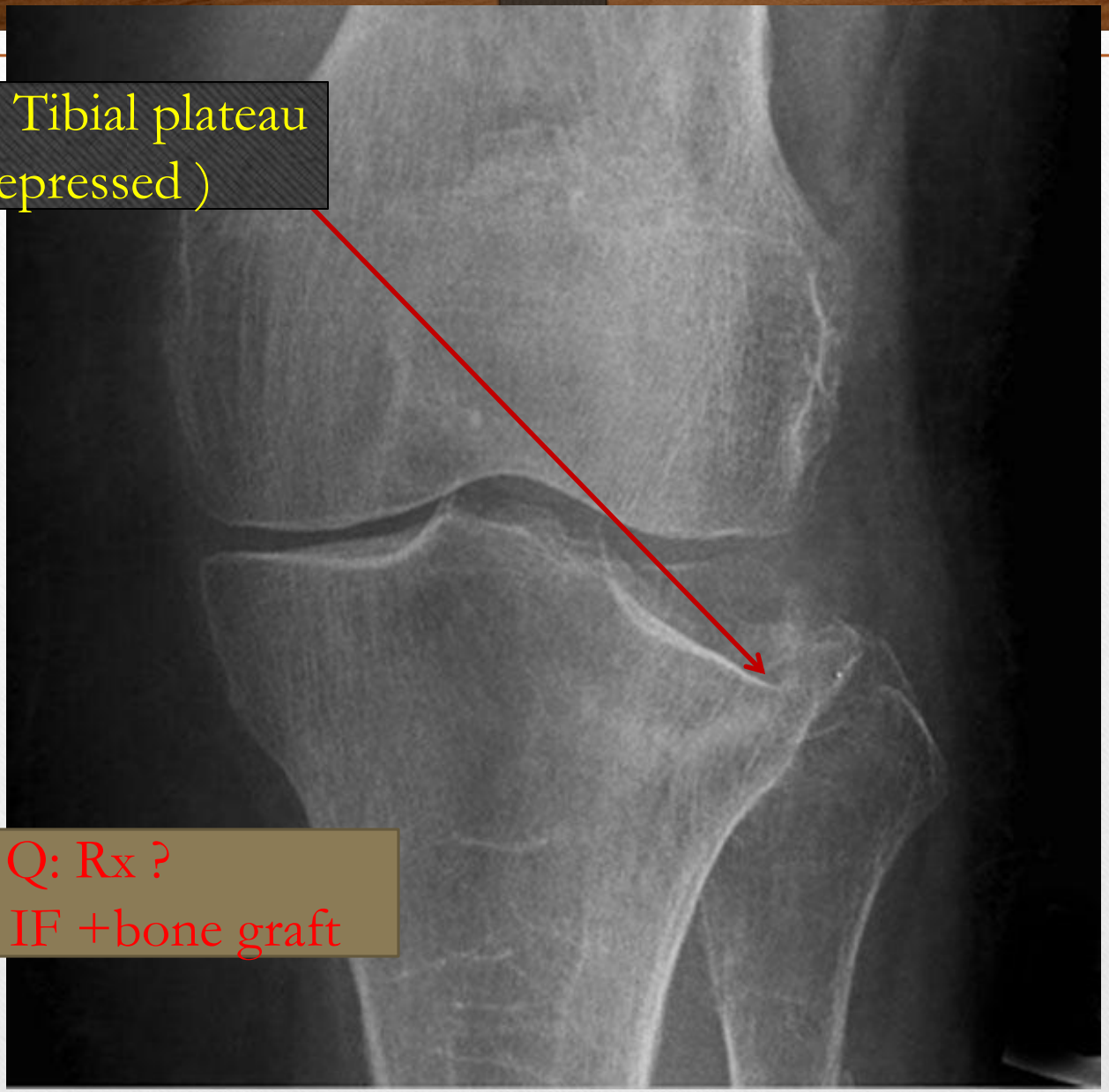


Displaced Transverse avulsion fr. Patella

Q: treat. ?

OR & IF by TBW


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Q: Rx ?

OR + IF +bone graft


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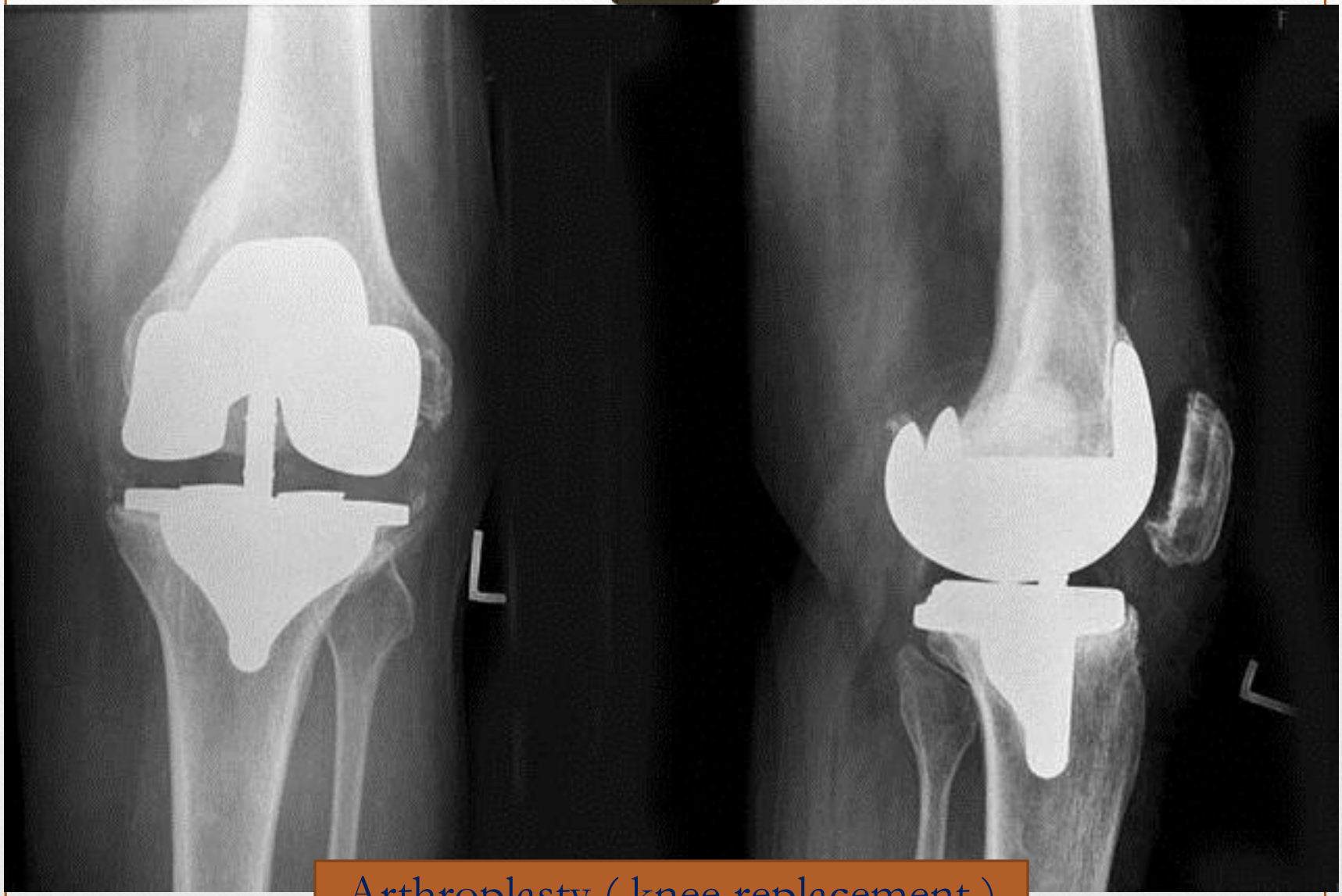


Advanced case of osteoarthritis

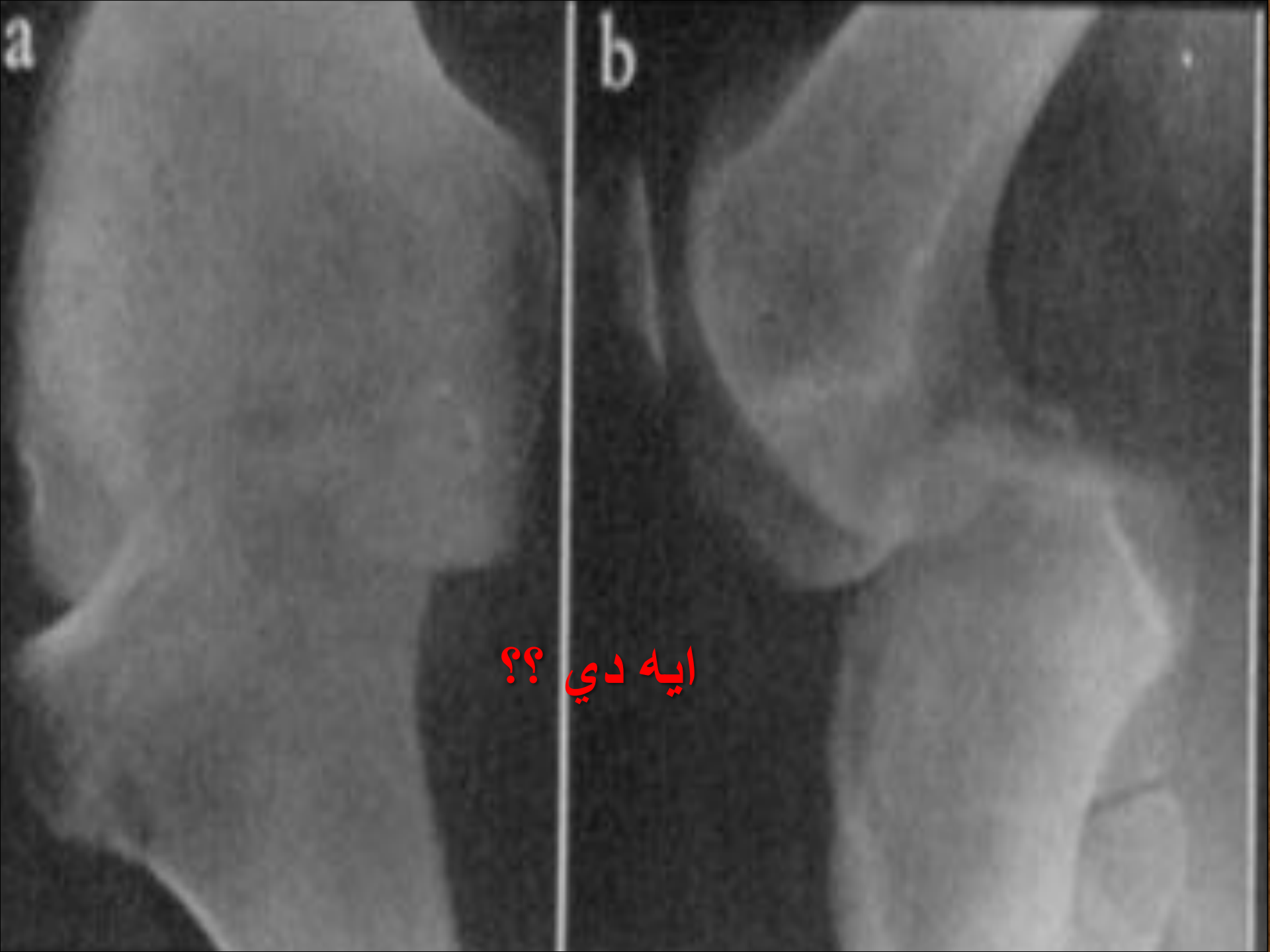
Q: treat. ?

Arthroplasty

موجودة بالتفصيل في فايل ال بون باثولوجي



Arthroplasty (knee replacement)


a
b
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Knee dislocation

Q: treat. ?

CR & plaster cast or OR in case of button holing

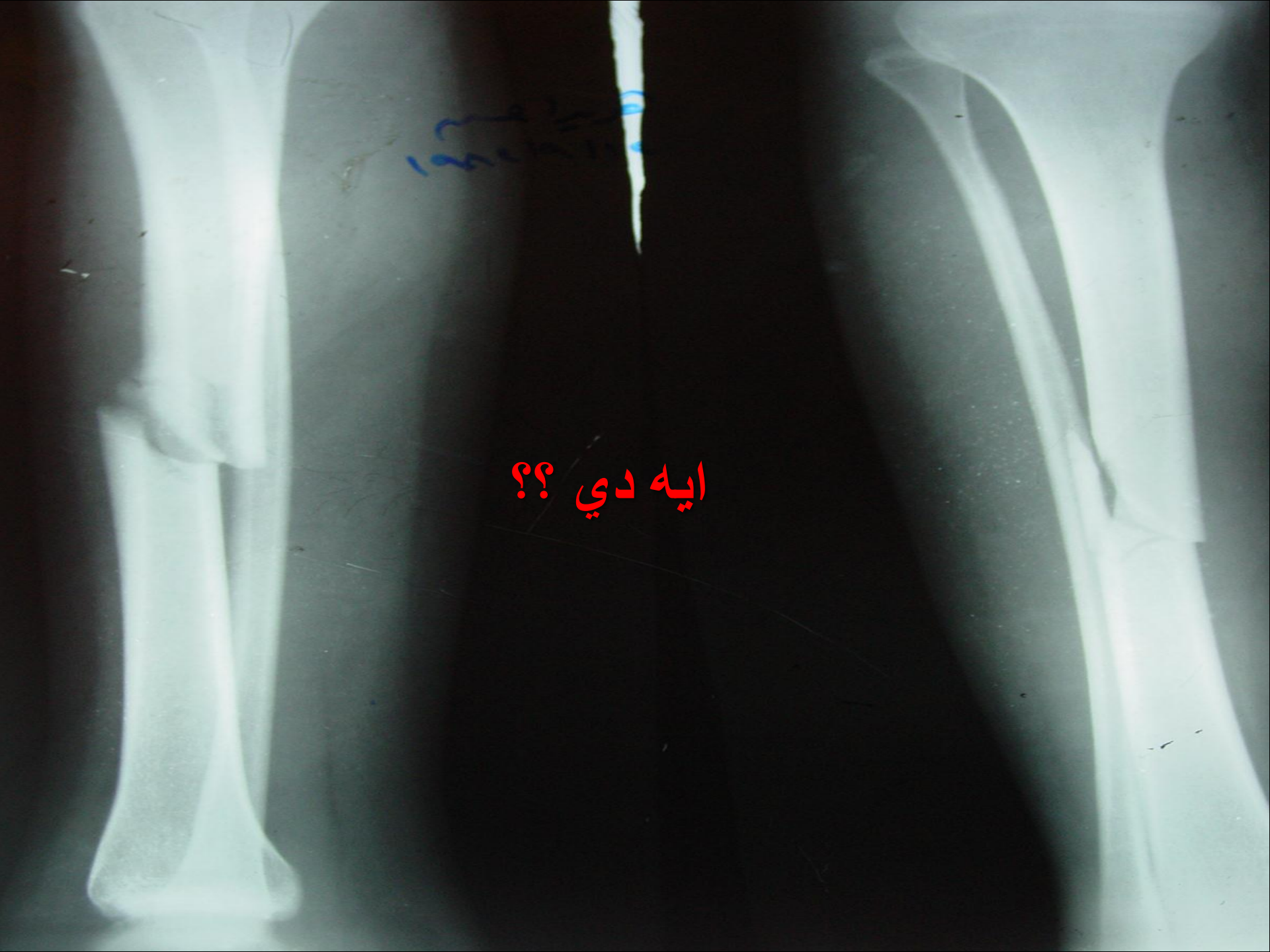
Q: Comp. ?

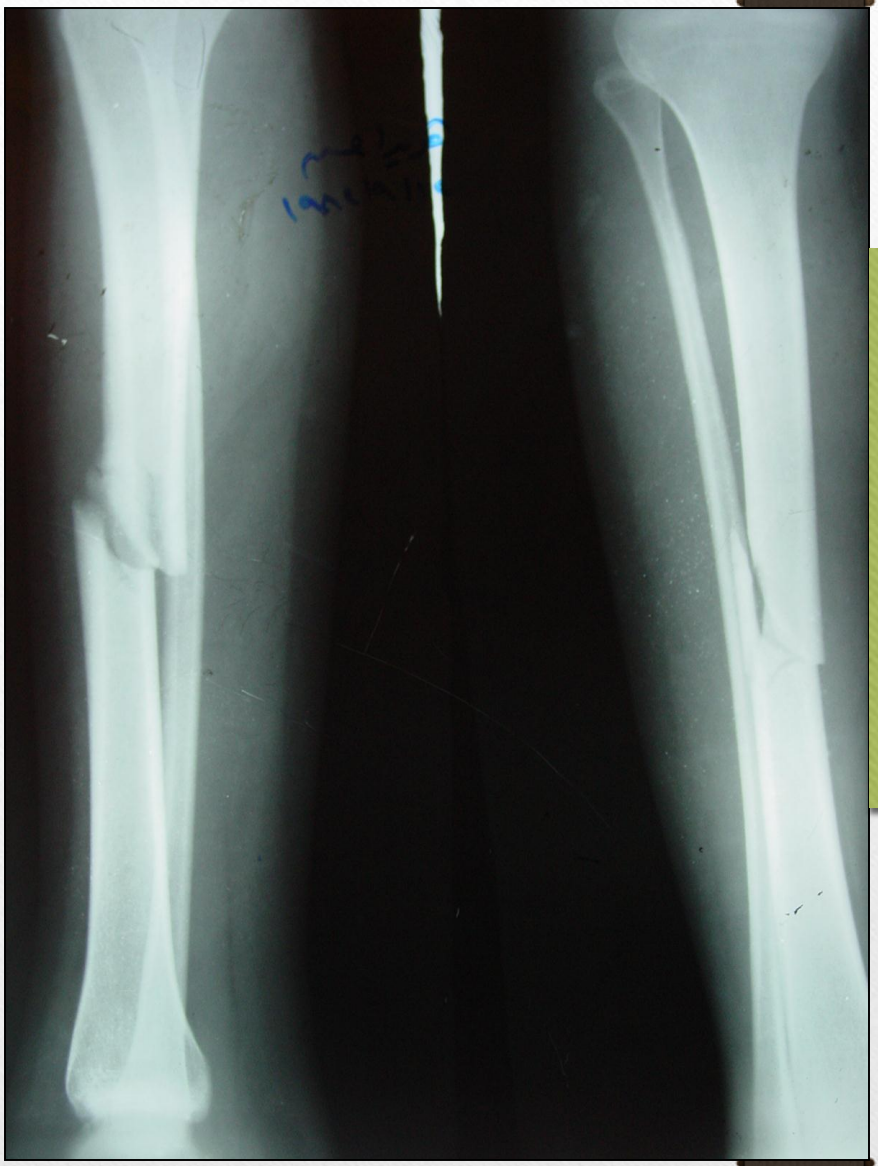
1.Popliteal a. injury >> ischaemic comp.

2. Medial & lateral popliteal n.

3. Myositis ossificans

4. Knee instability


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Shaft fr. Tibia

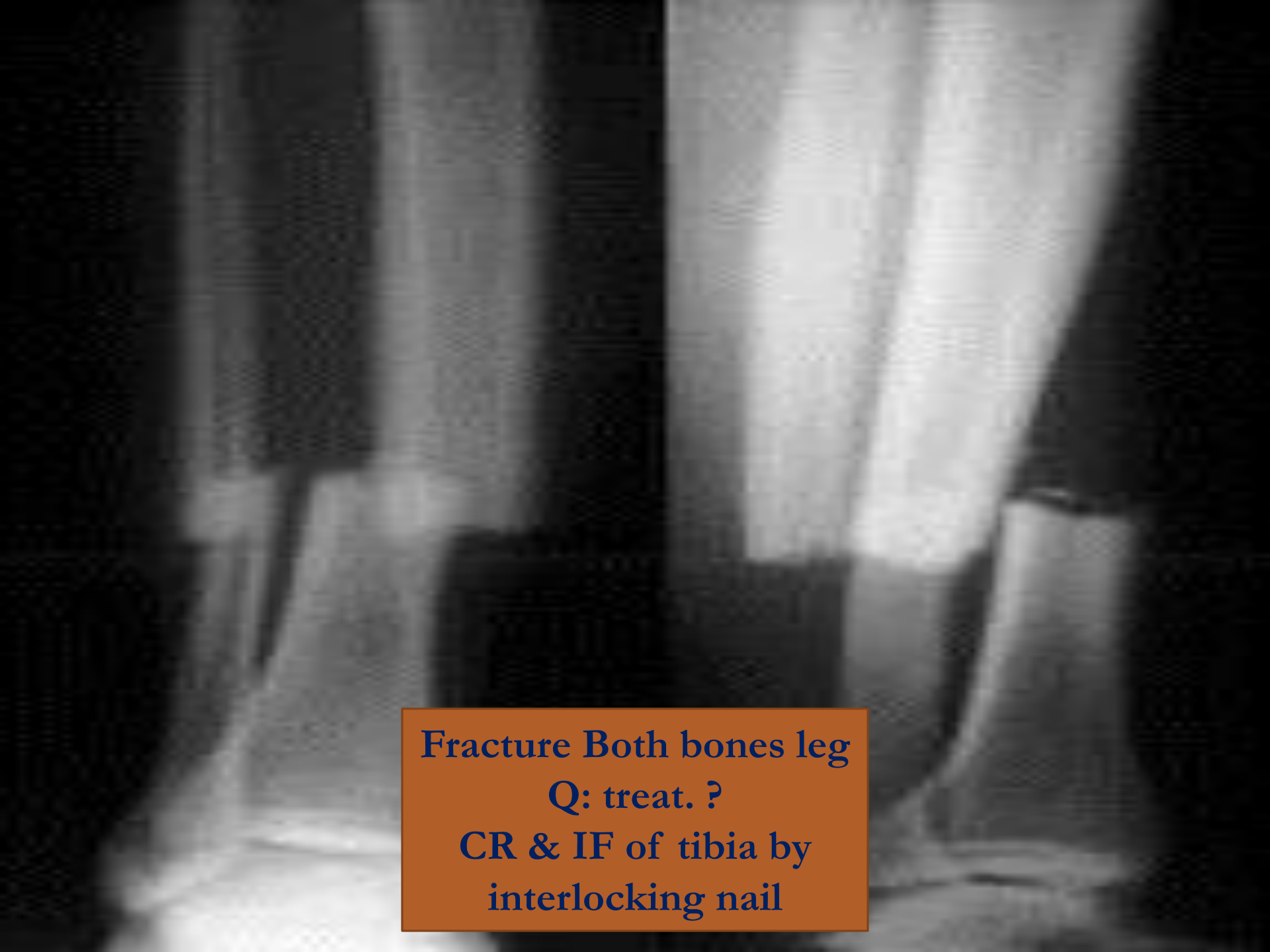
Q: treat. ?

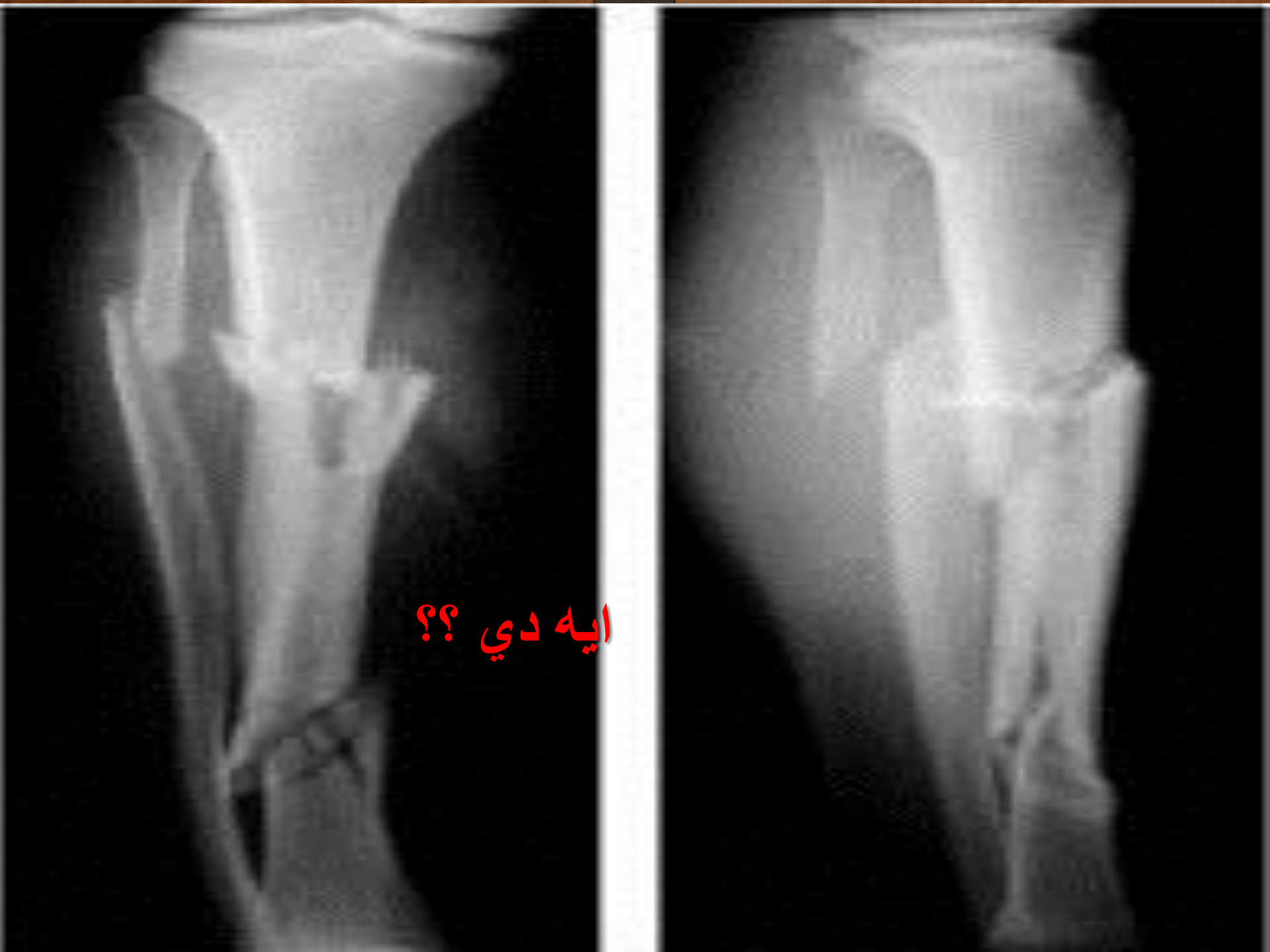
CR & Interlocking nail

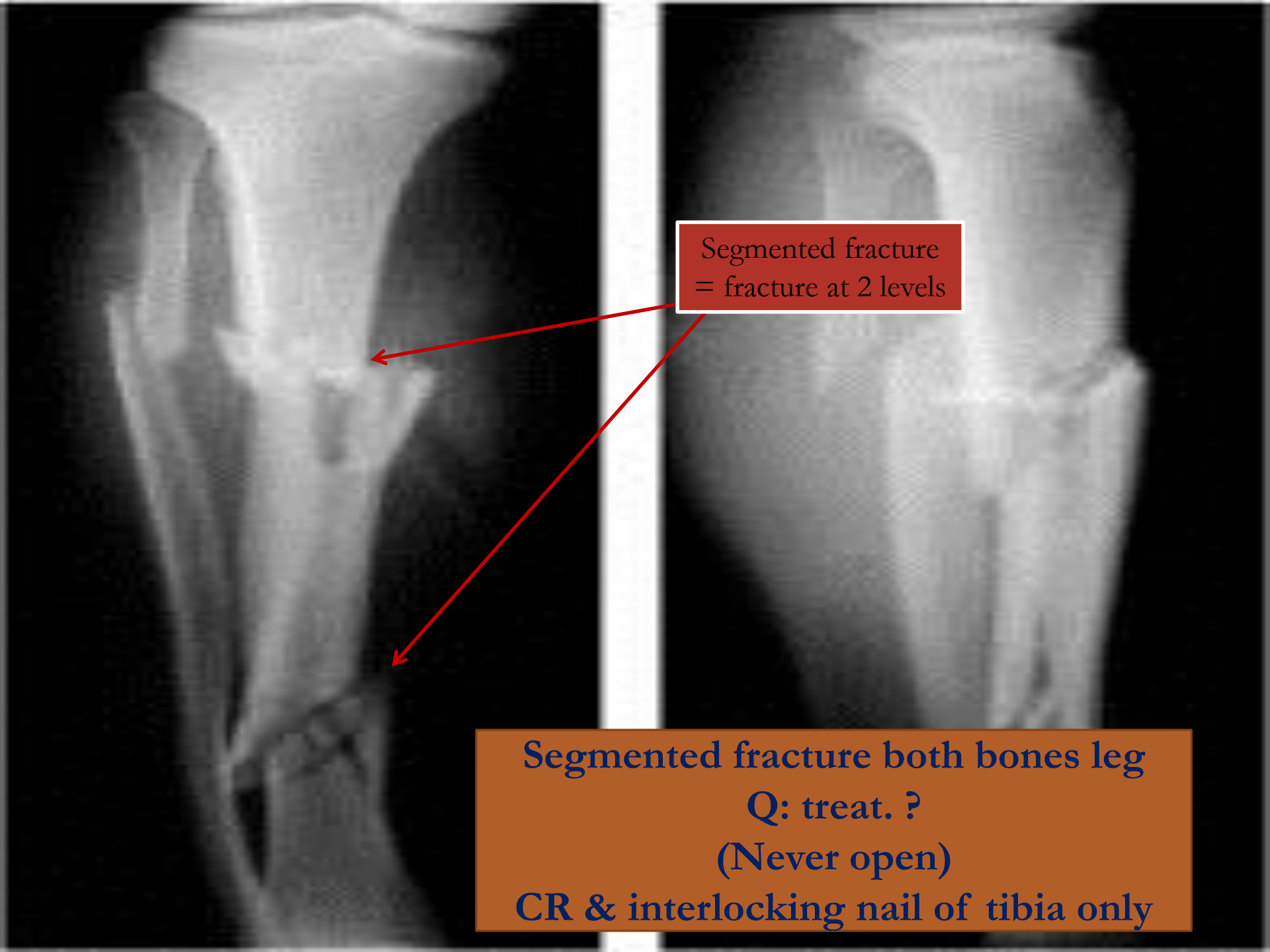
Q: comp. ?

Delayed union or non-union


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Fracture Both bones leg
Q: treat. ?
CR & IF of tibia by
interlocking nail


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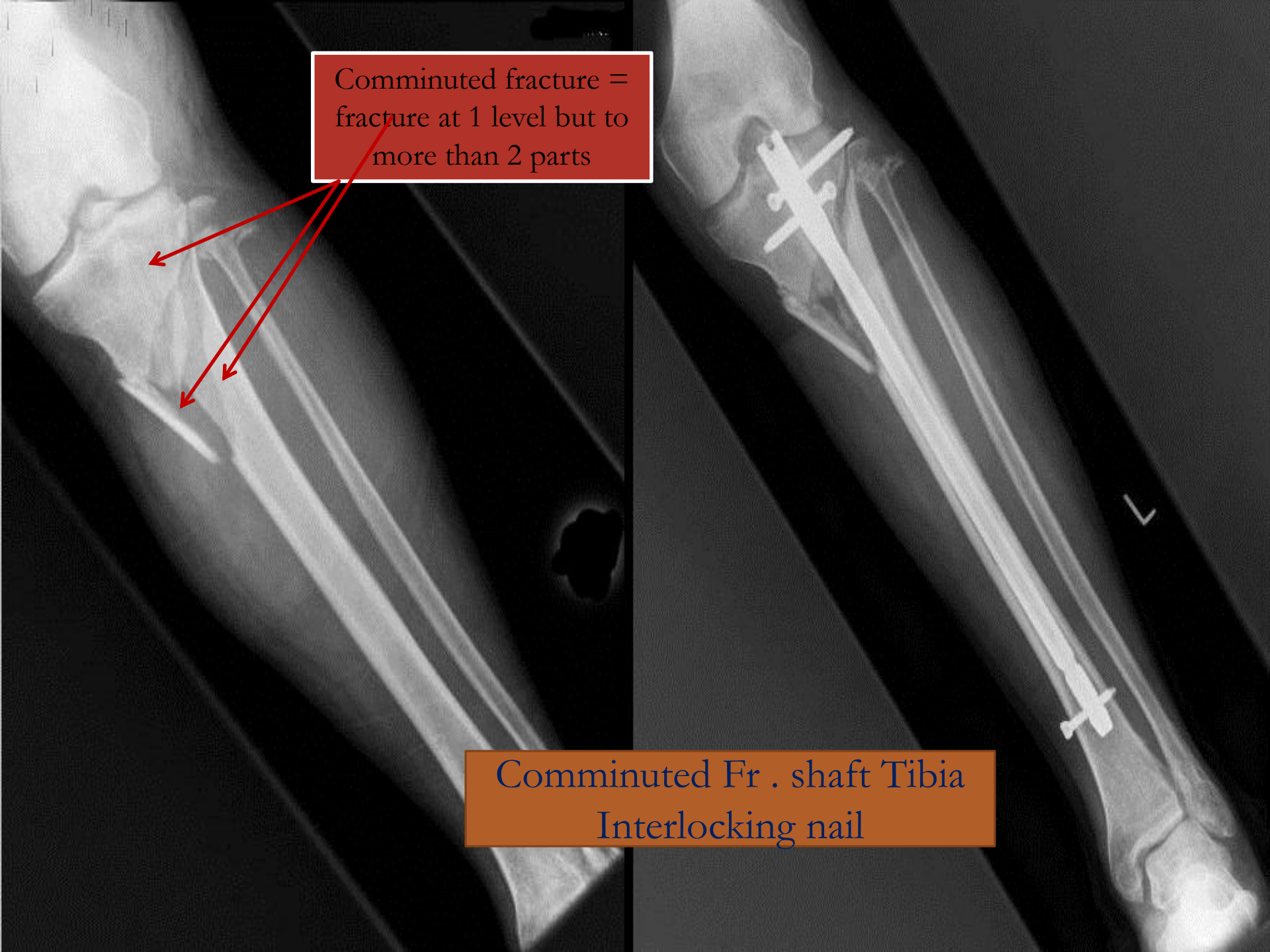


Segmented fracture both bones leg

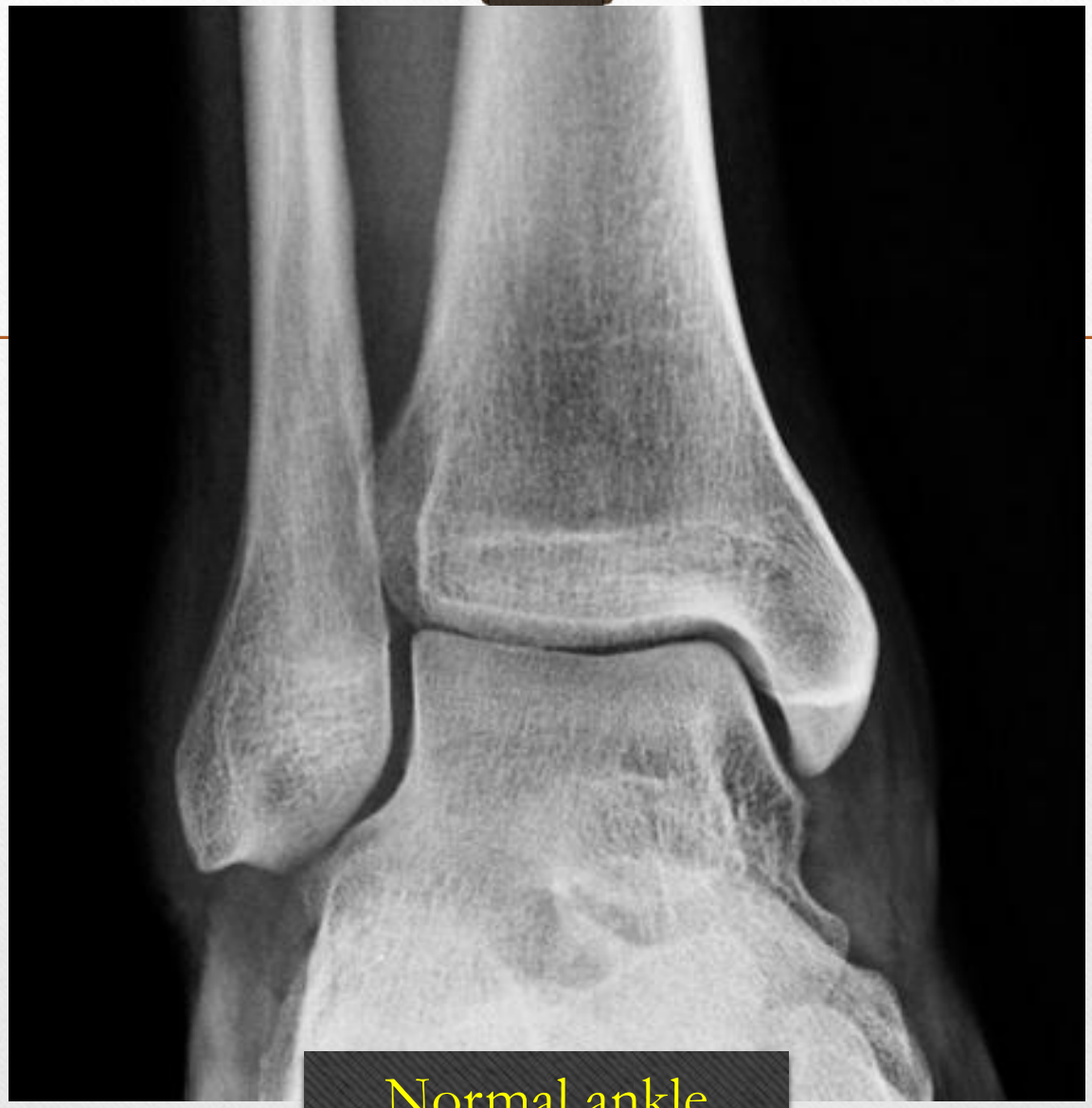
Q: treat. ?

(Never open)

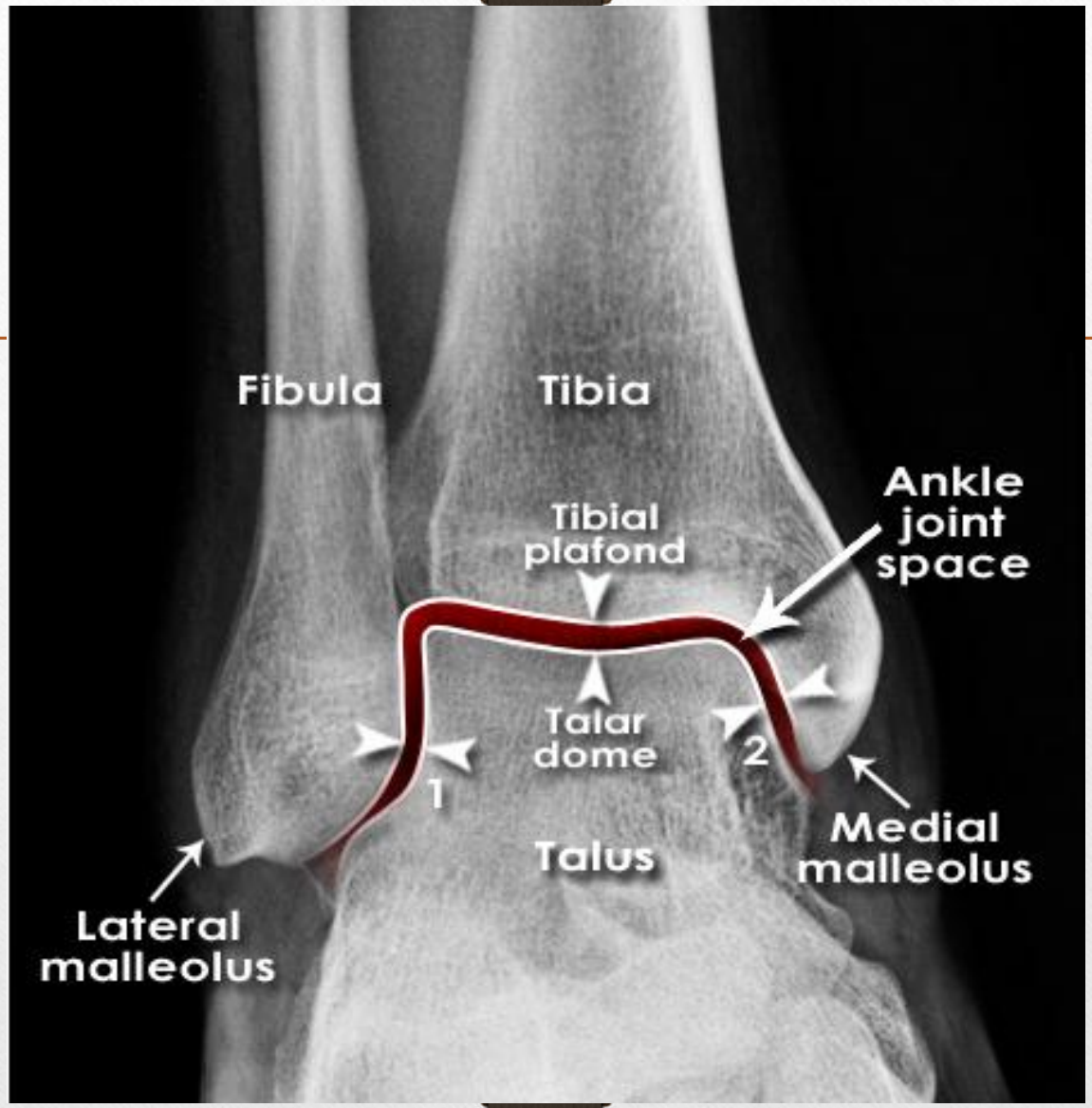
CR & interlocking nail of tibia only

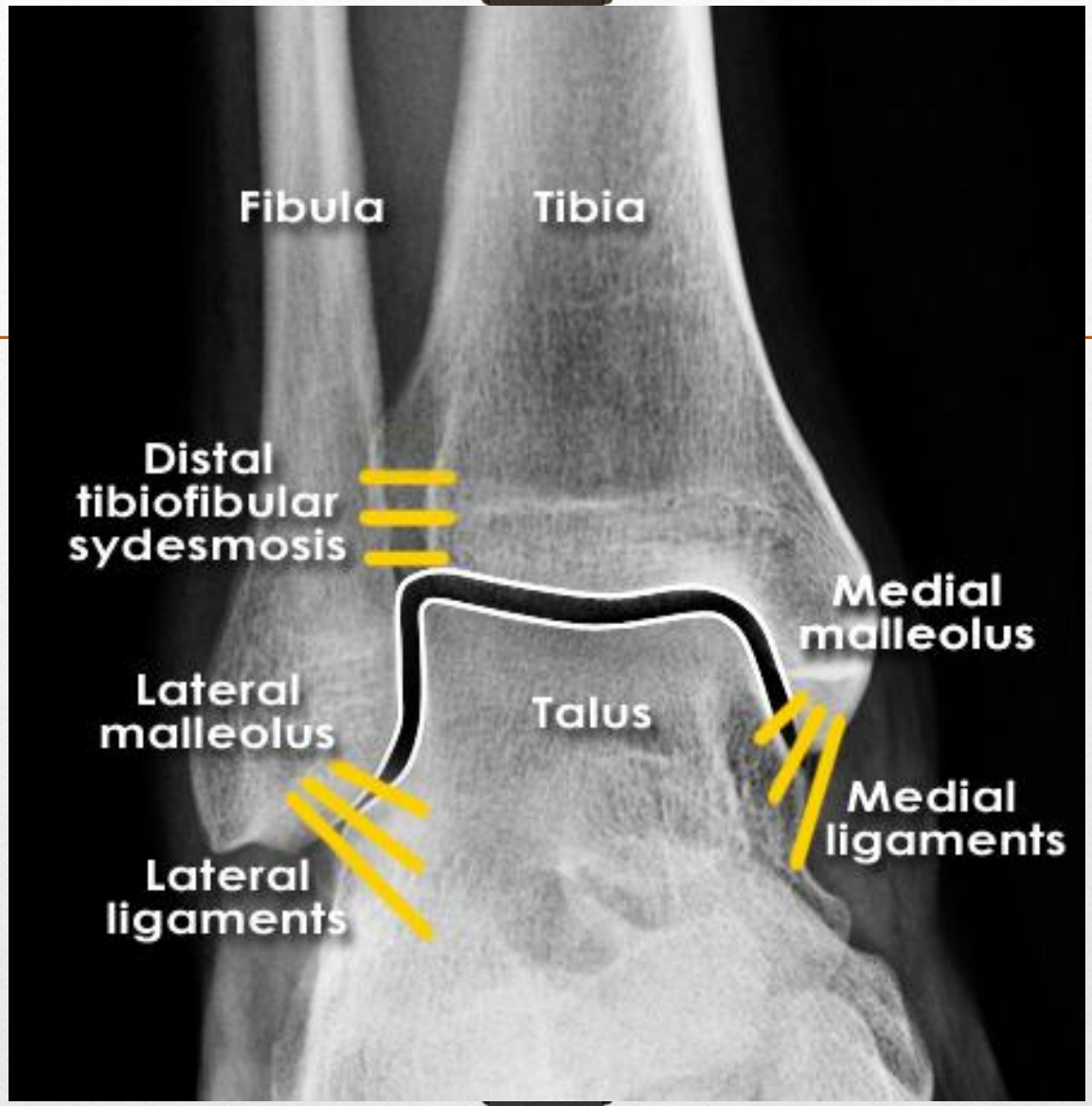

Comminuted fracture = fracture at 1 level but to more than 2 parts
Comminuted Fr . shaft Tibia
Interlocking nail

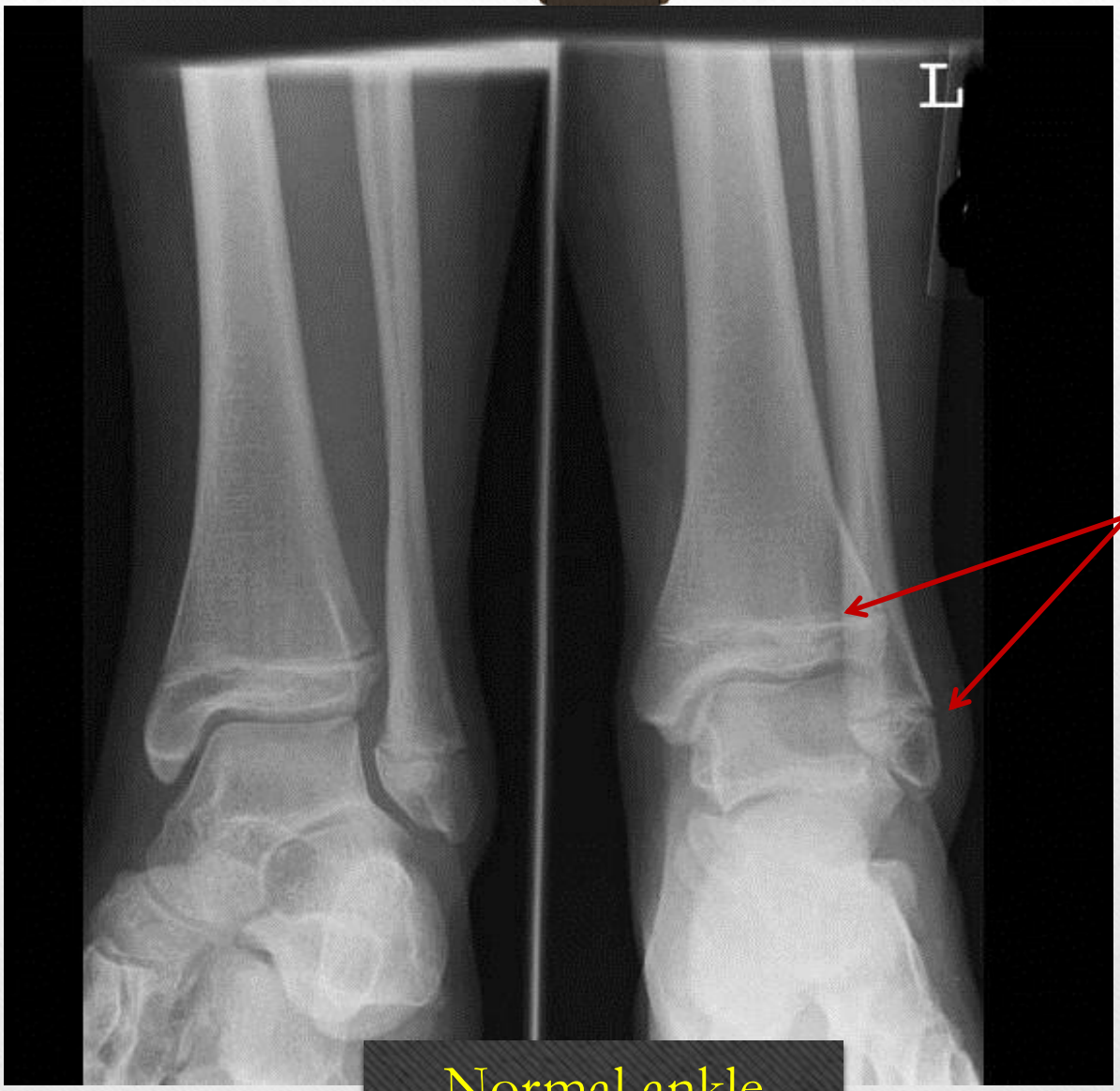
ANKLE & FOOT



Normal ankle


Fibula
Tibia
Tibial plafond
Ankle joint space
Talar dome
1
2
Talus
Medial malleolus
Lateral malleolus


Fibula
Tibia
Distal tibiofibular sydesmosis
Medial malleolus
Lateral malleolus
Talus
Medial ligaments
Lateral ligaments



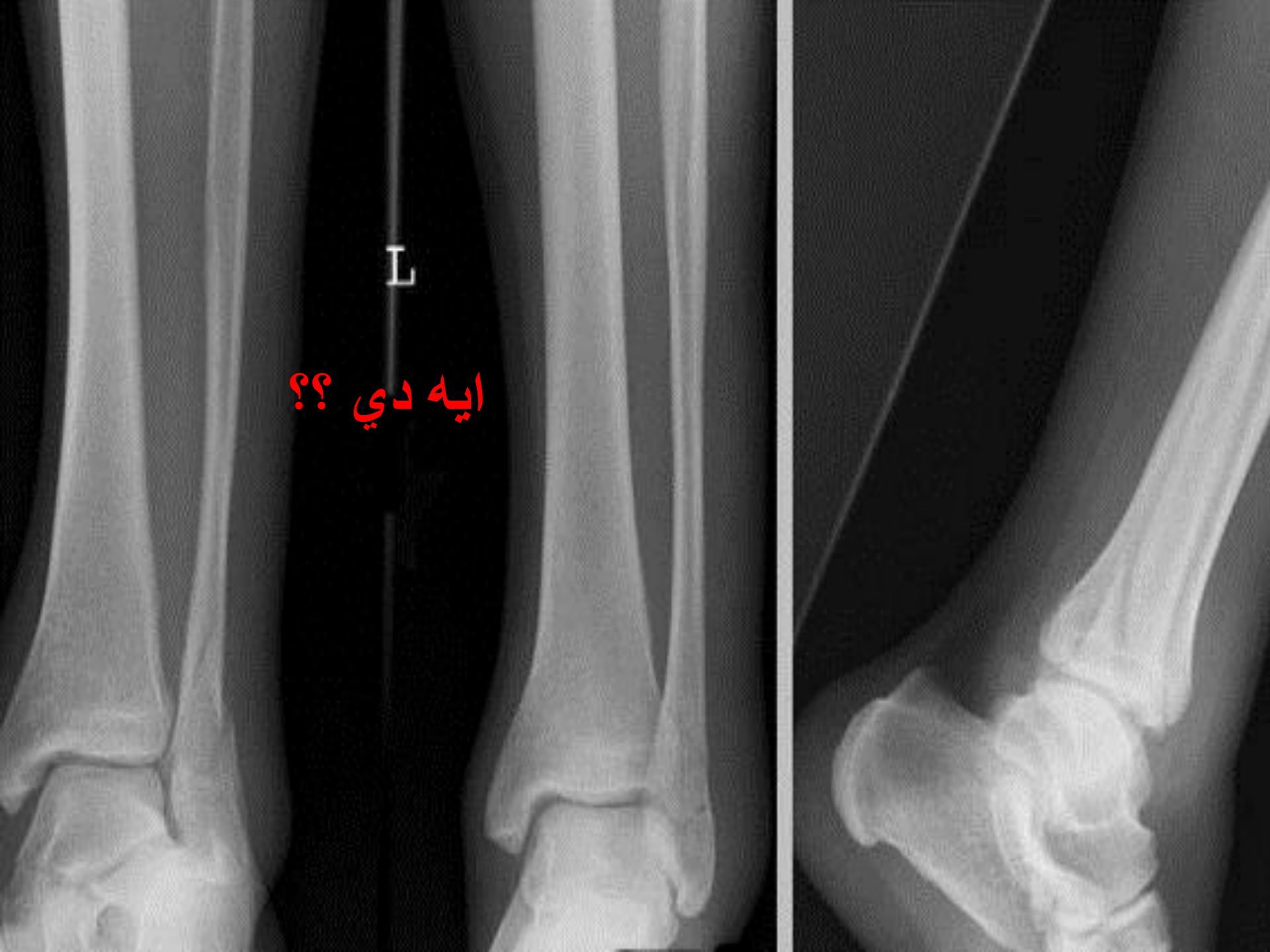
da epiphysis
3ady 5ales ….
Mesh fracture

Normal ankle



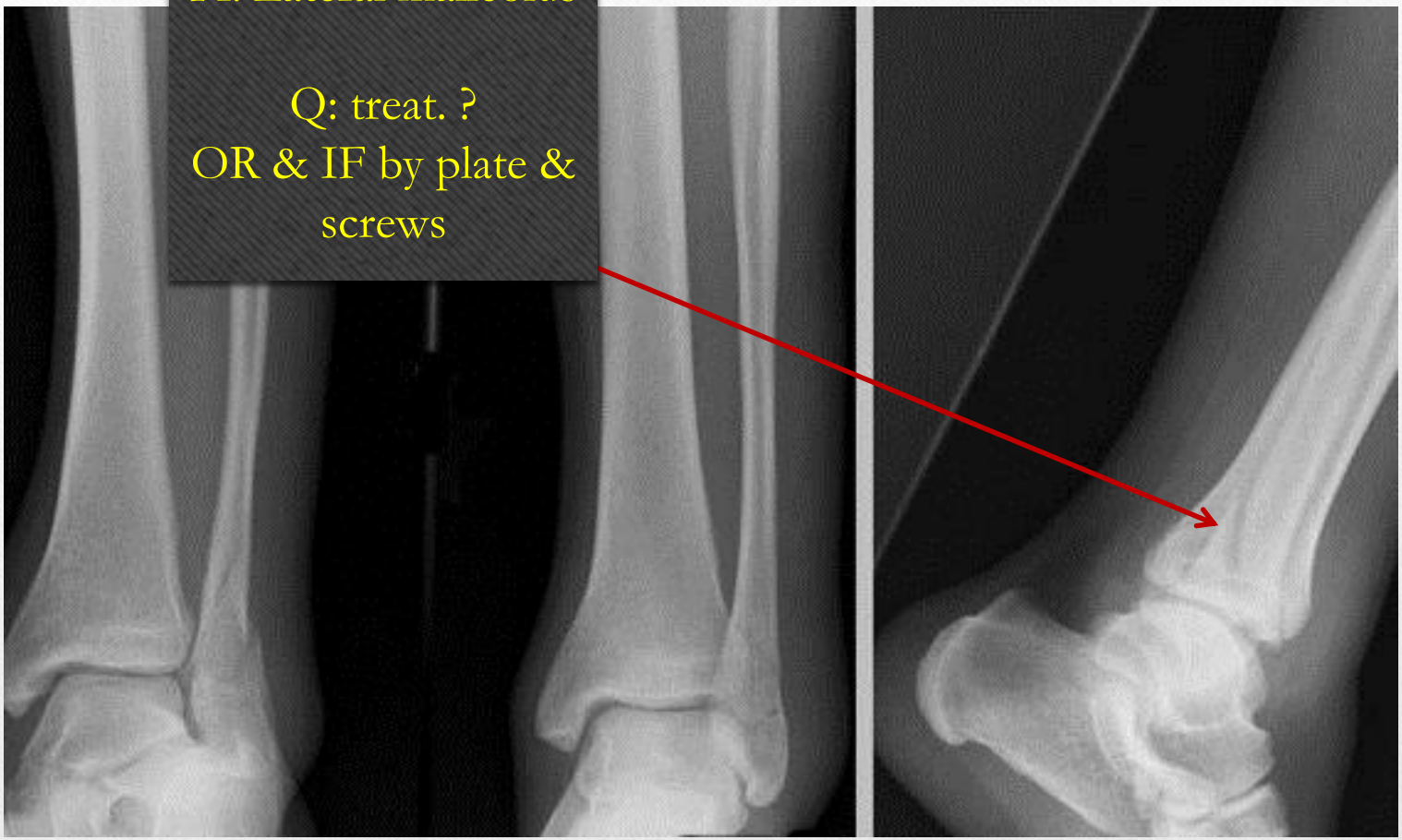
في الانكل هنبص على كذا حتة كدة عشان ما نفوتش حاجة

1) lower tibia + medial malleolus
2) lower fibula + medial malleolus
3) lower tibiofibular joint
4) talus
5) el space been el talus wel tibia
6) el calcaneus lw mawgooda


L
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Fr. Lateral malleolus

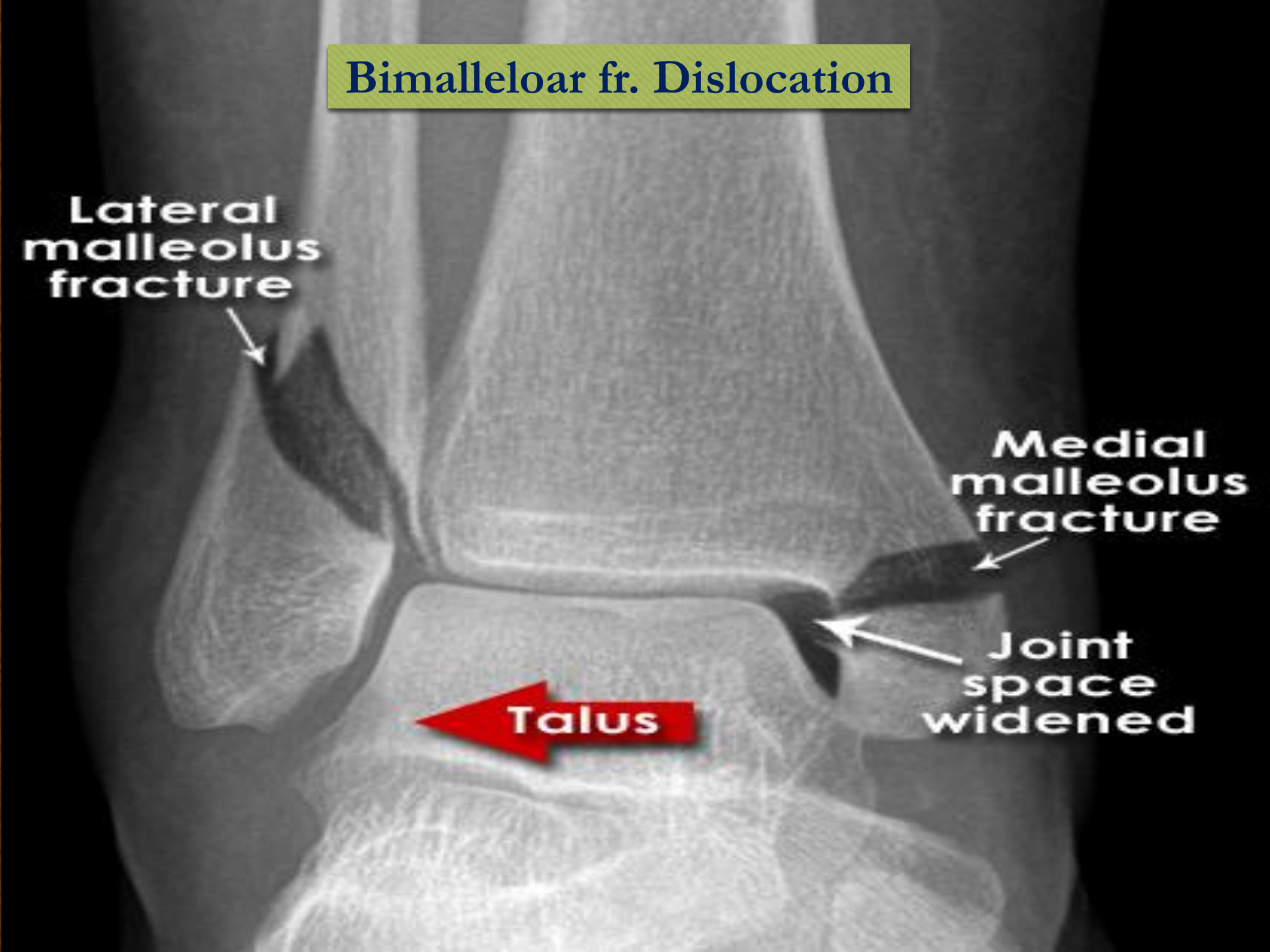
Q: treat. ?
OR & IF by plate & screws




Fr. Lateral malleolus


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Bimalleloar fr. Dislocation

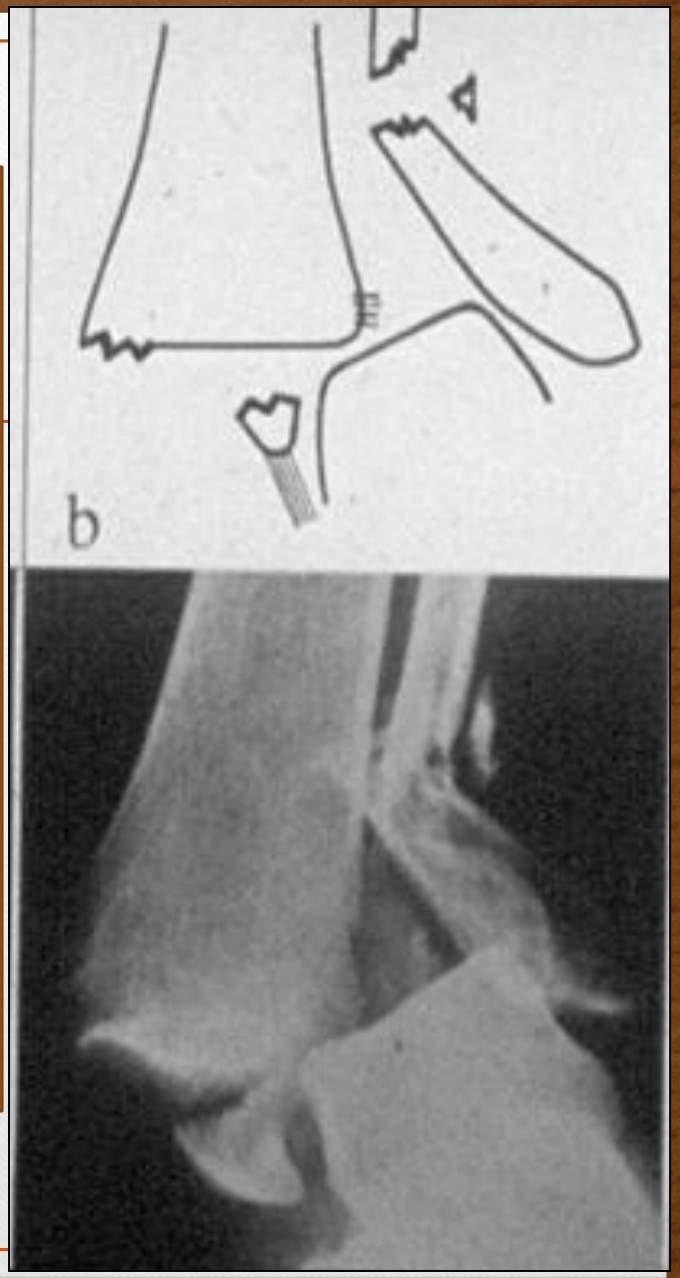


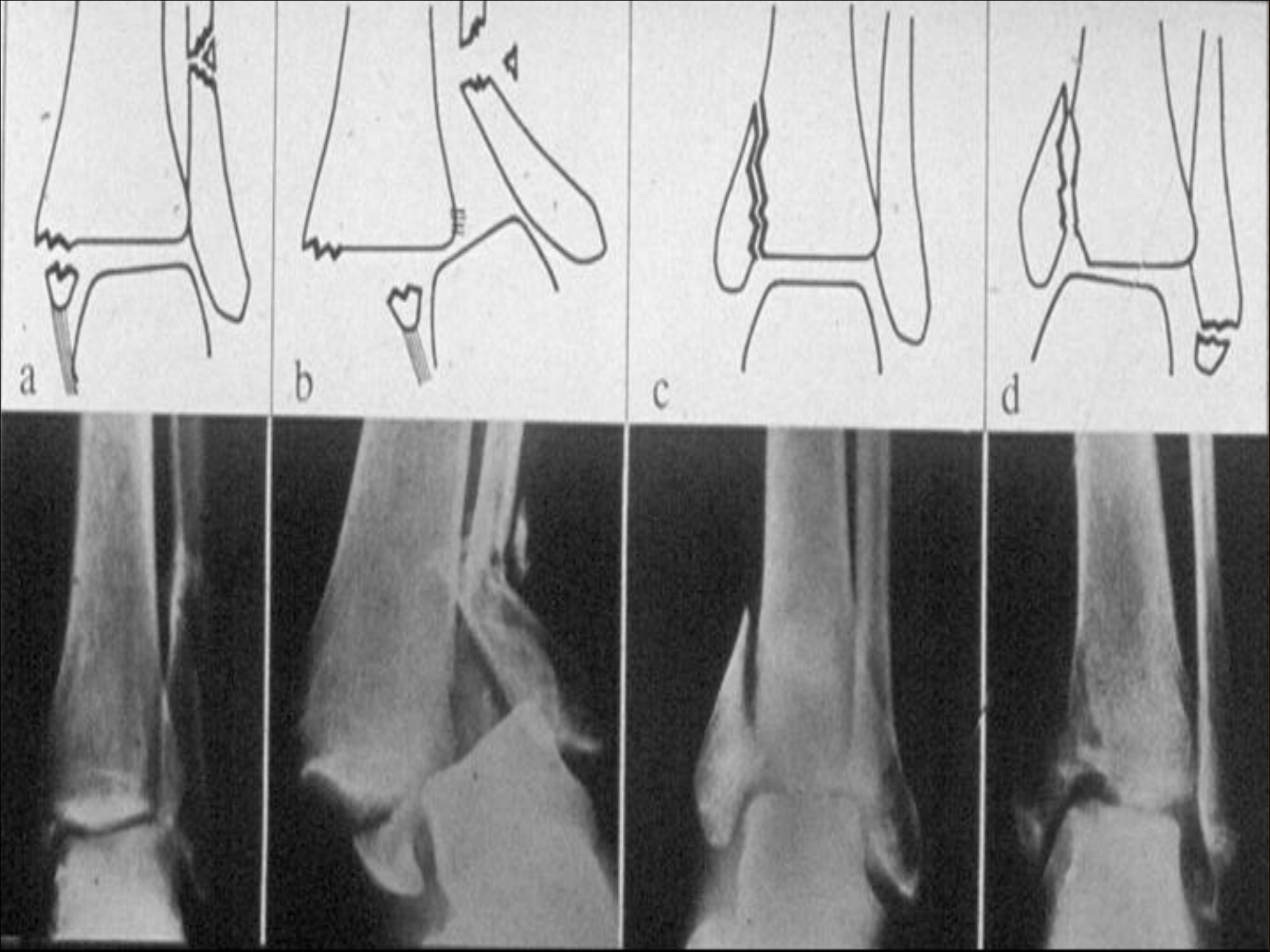

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Bimalleloar fr. Dislocation
(intra-articular)

Q: treat ?
- undisplaced >> below knee plaster cast
- displaced or marginal>> OR & IF
- Comminuted >> CR, plaster cast or skeletal traction

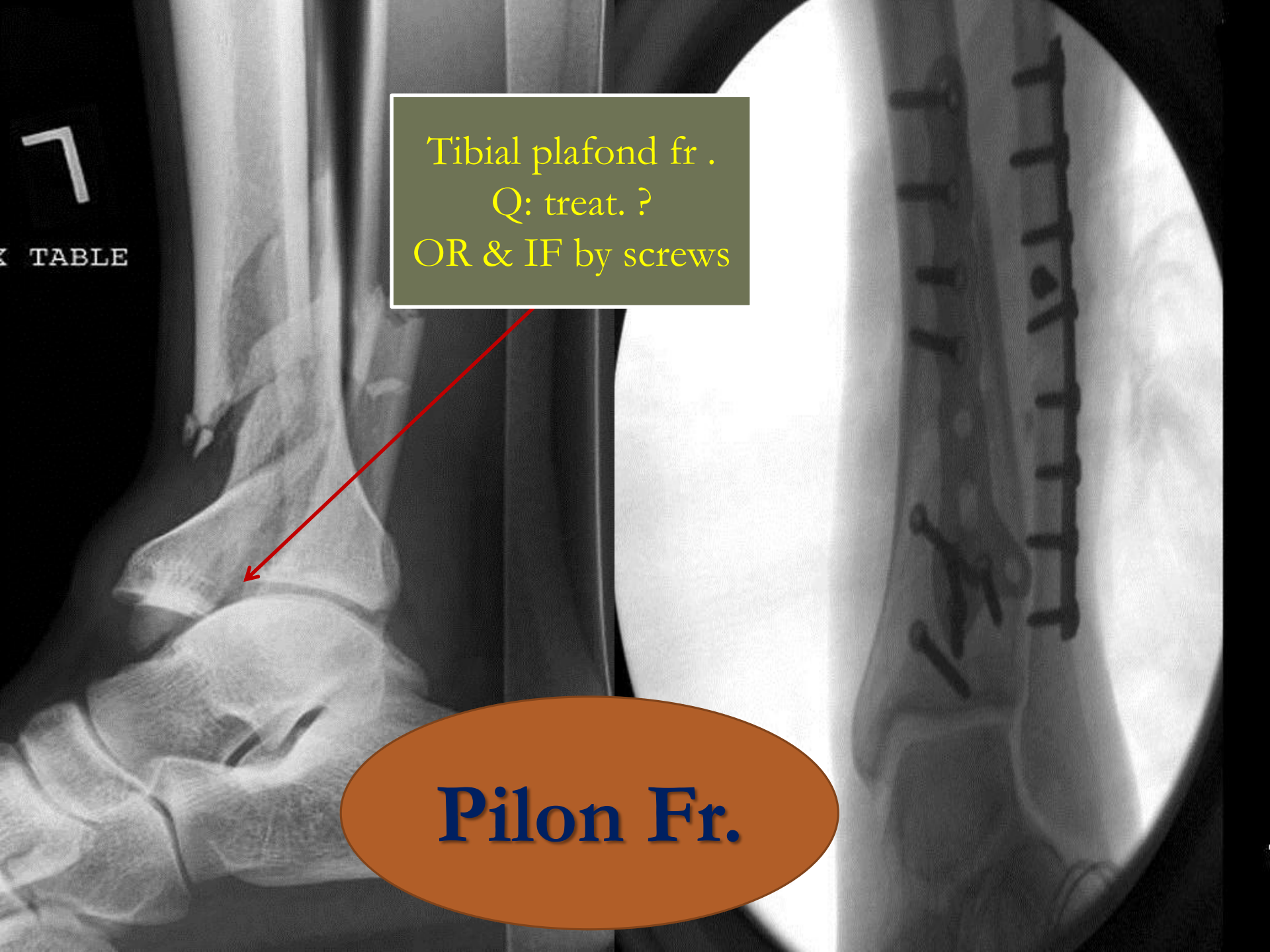
Q: Comp. ?
Malunion, non-union, degenerative arthritis



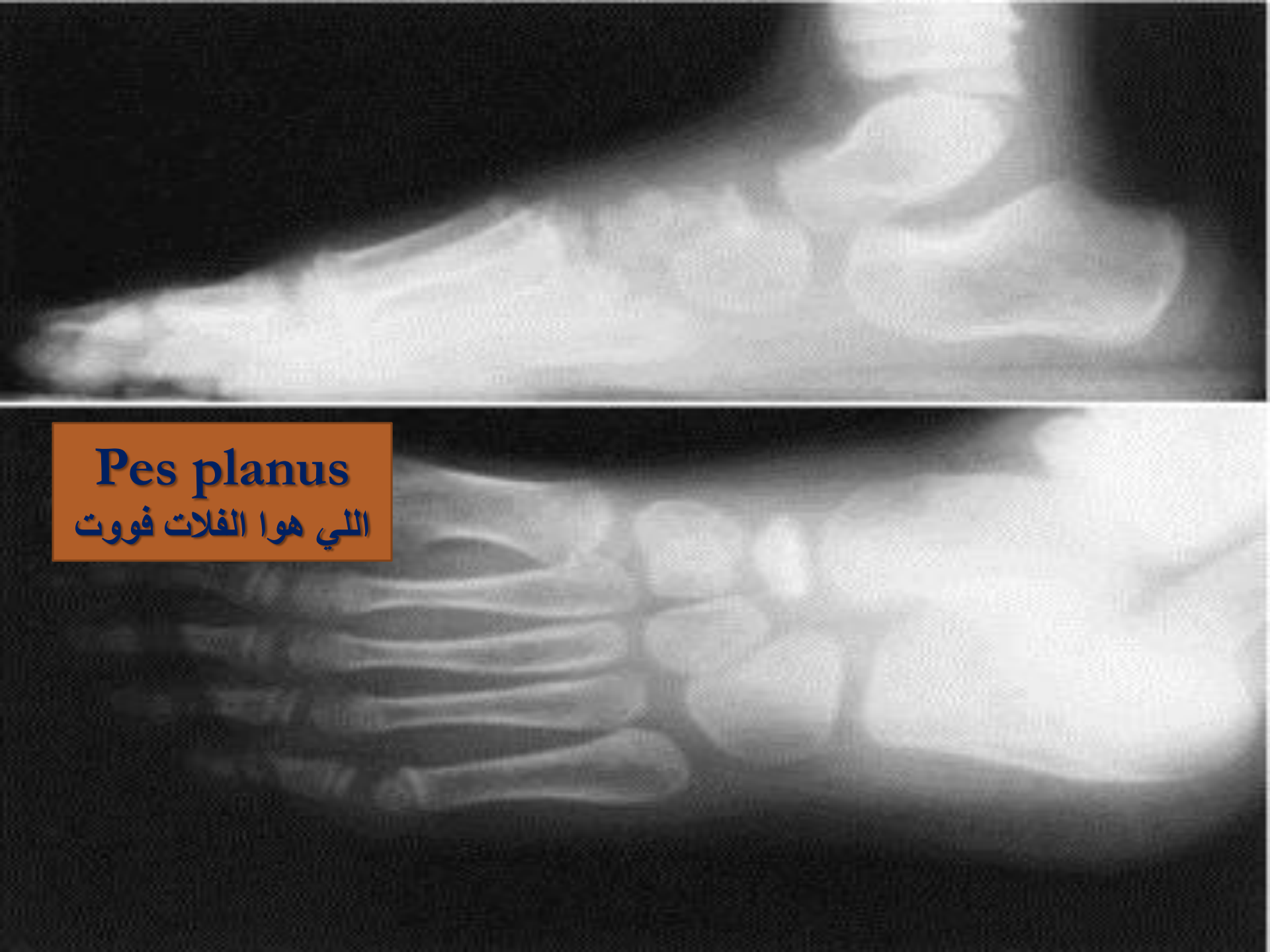

a
b
c
d



Bimalleloar fr. Dislocation


TABLE
Tibial plafond fr .
Q: treat. ?
OR & IF by screws
Pilon Fr.


R
Pes cavus


Pes planus
اللي هوا الفلات فووت

Tagme3at treatment

- Neck femur >>> cancellous screw or hemiarthroplasy according to age
- Trochanteric >>> DHS
- Ay shaft (femur or tibia) >>> CR + IF by interlocking nail
- Shaft fibula >>> conservative (non-weight bearing)
- Ay 7aga around knee or ankle >>> OR + IF by screws except **el supracondylar by DCS** w **lateral malleolar fracture by plate & screws**
- Ay slipped epiphysis >>> OR + IF by pins or screws

In the memory of Dr. Mohammed El Ghandour



Done By

Hams Fekrey & Marwan El Sokkary

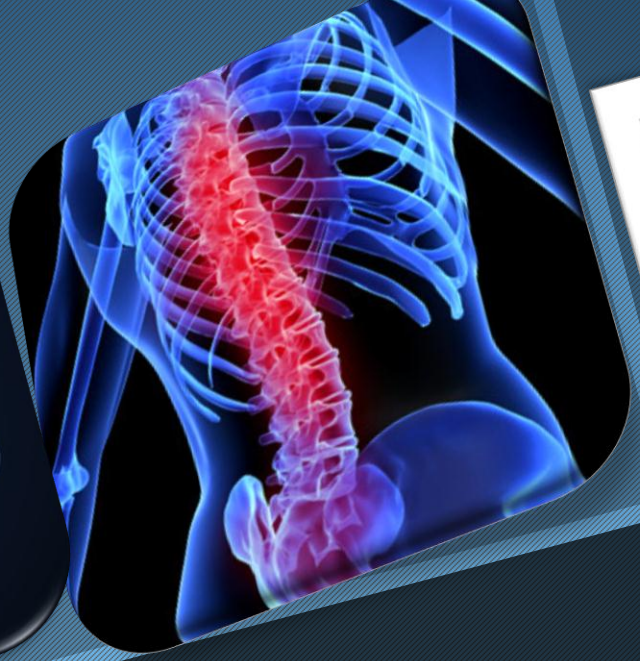




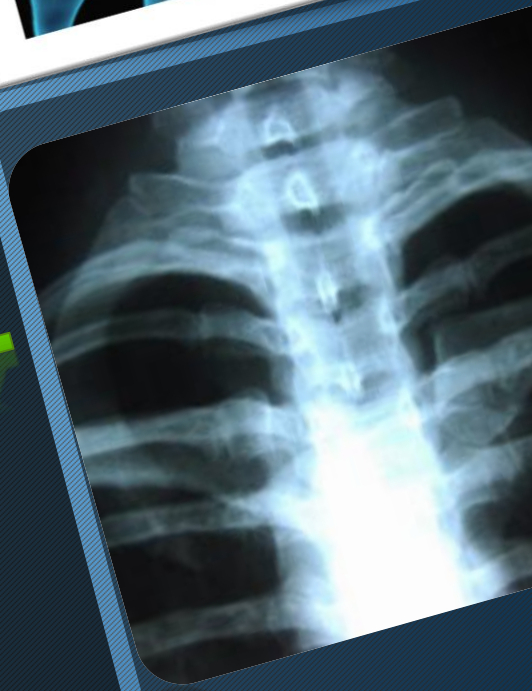
Thank you











X RAY SPOTS FOR SPINE INJURIES

نبتدي بالعمود الفقري (اهو انت اللي فقري و ستين فقري)D:

هنحط الوضع النورمال و نوضح عليه كل حاجة و بعد كدة نحط الأبنورمال و نشرح عليه بحيث ان شاء الله تخرج من الفايل ده هاضم الجزئية دي و مستعد تجاوب على اي سؤال فيها



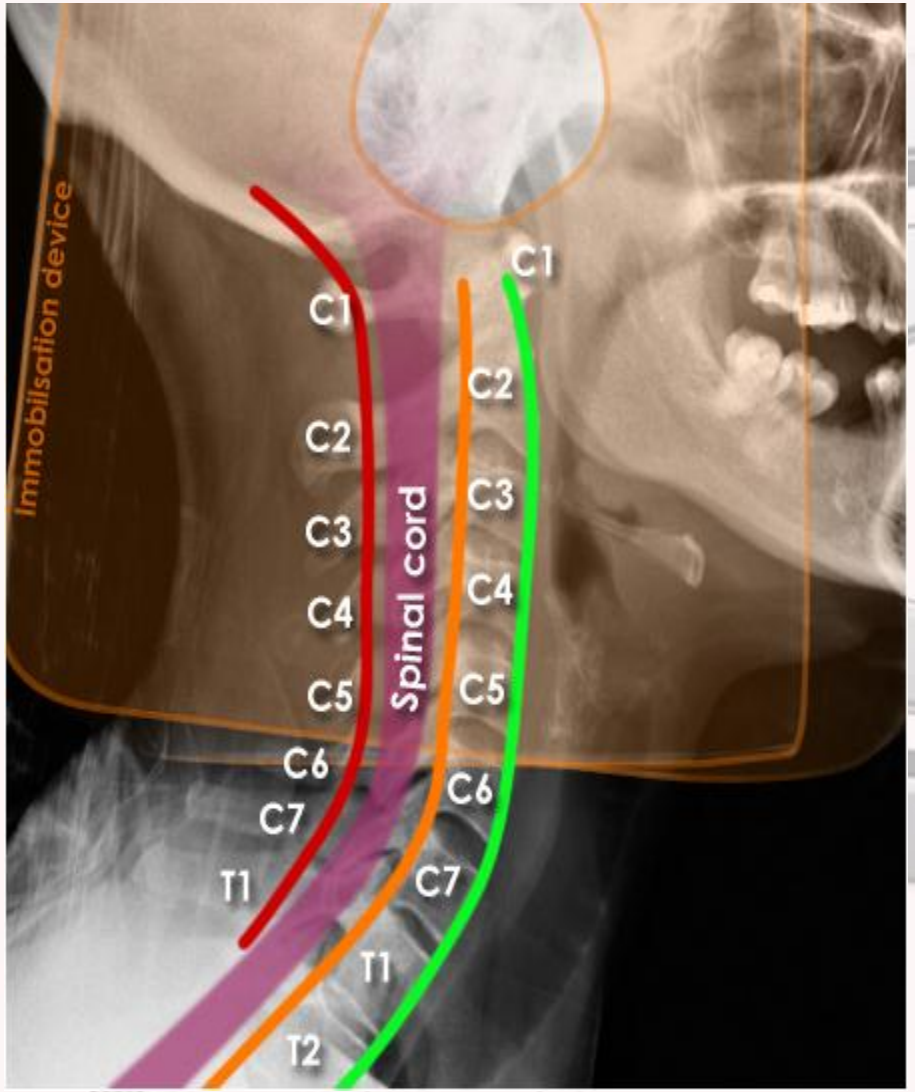
Normal Lateral Cervical Spine View



ركز في النورمال كويس
اوي



Normal Lateral Cervical Spine View



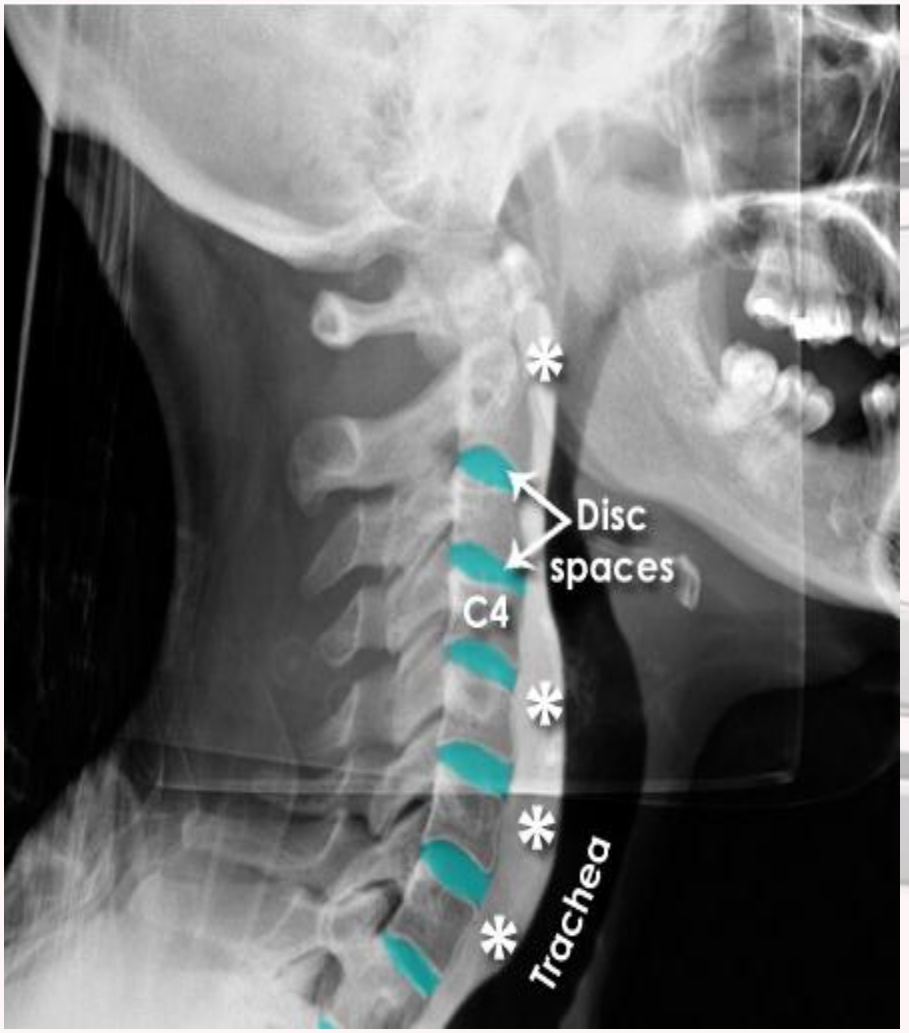
- **Green** line >>> ant. Longitudinal lig.
- **Orange** line >>> post. Longitudinal lig.
- **Red** line >>> Spinolaminar line
 و ده بنعتمد عليه باعتبار ان spinal process
 حجمها بيختلف من فقرة للتانية

بس طالما شغالين في منطقة واحدة spinal bas aw thoracic bas aw lumber bas
يبقى عادي ممكن تعتمد على ال spinal process

لاحظ ان الخطوط دي كلها لازم تكون قادر ترسمها في ذهنك عشان لو اي اعوجاج حصل فيها يبقى حصل dislocation



Normal Lateral Cervical Spine View



و بردو لازم تاخد بالك
كويس اوي من الديسكات
عشان الحاجات اللي بتأثر
عليها سواء تقطمها
(fracture) او تزحلقها
(disc prolapse)
او يفرمها خالص
(Spondylosis)



Normal Lateral Cervical Spine View

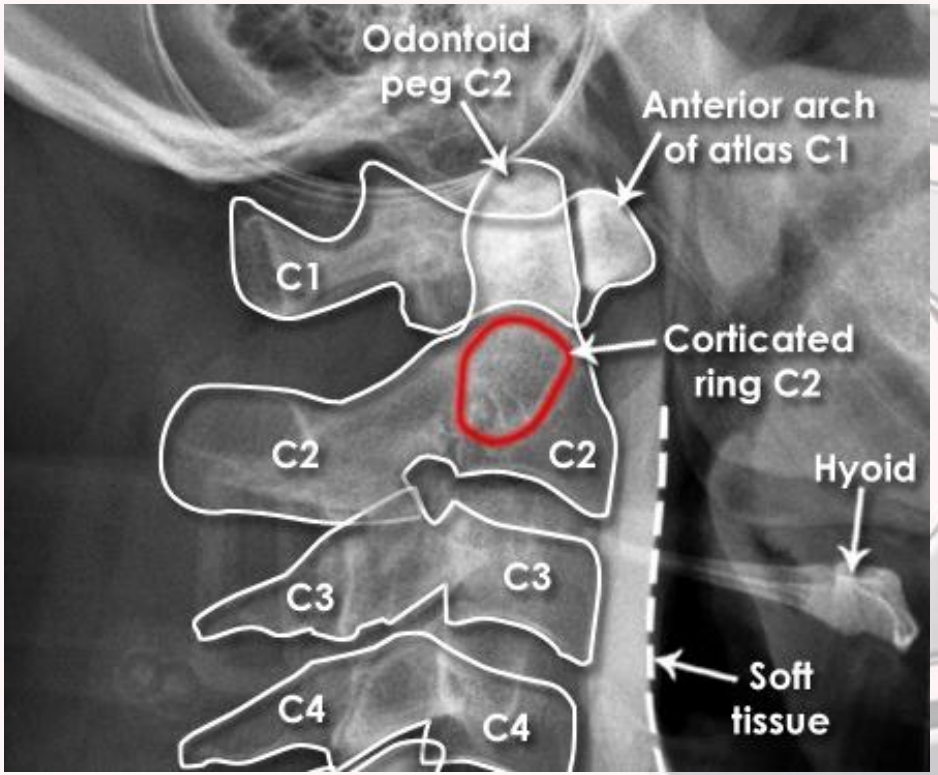


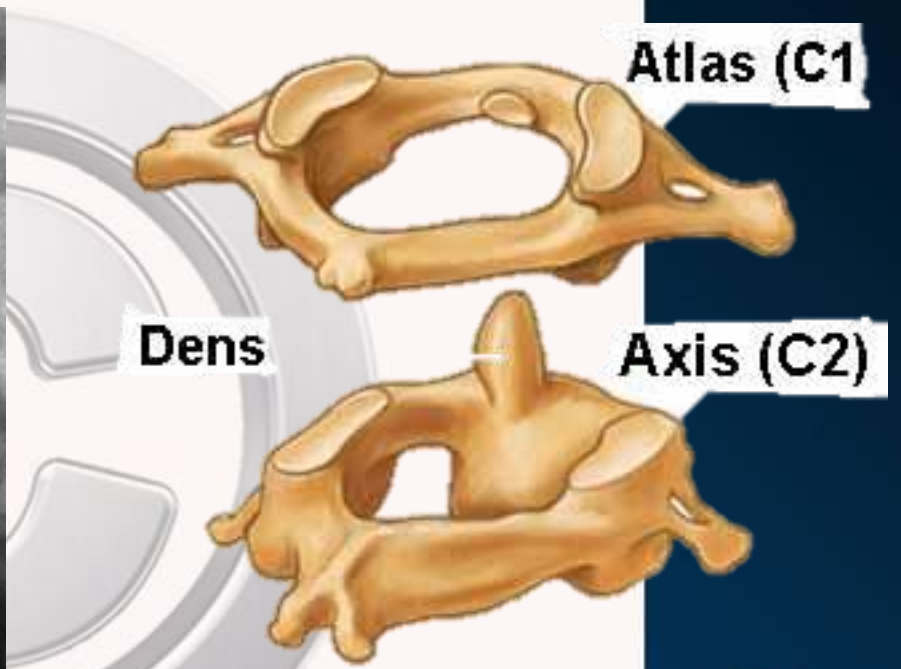
كدة احنا عملنا زووم
على الفقرتين رقم ١
و ٢ عشان نركز
فيهم كويس



CrystalGraphics

Normal Lateral Cervical Spine View

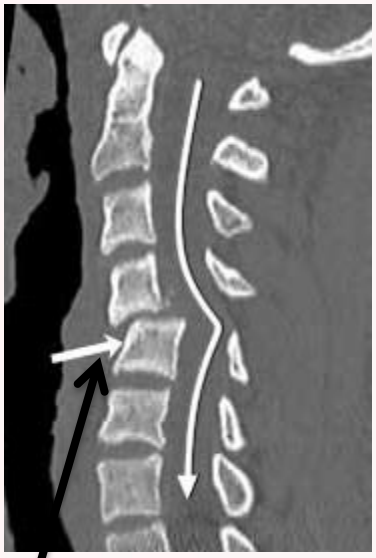






شايفين ازاي رقم ١ راكبة على رقم ٢ ؟
و شايفين البزبوز اللي طالع من رقم ٢ اللي اسمه odontoid process ?

Normal Lateral Cervical Spine View



رغيت شوية في رقم ١ و ٢ عشان لما يجيبلك صورة زي دي و يقولك الابنورماليتي موجودة في انهي فقرة تقوم تعرف تعد ازاي



- آدي رقم ١
- و آدي الاودونتويد بتاعة رقم ٢
- و آدي رقم ٣
- يبقى الابنورماليتي موجودة بين رقم ٤ و ٥



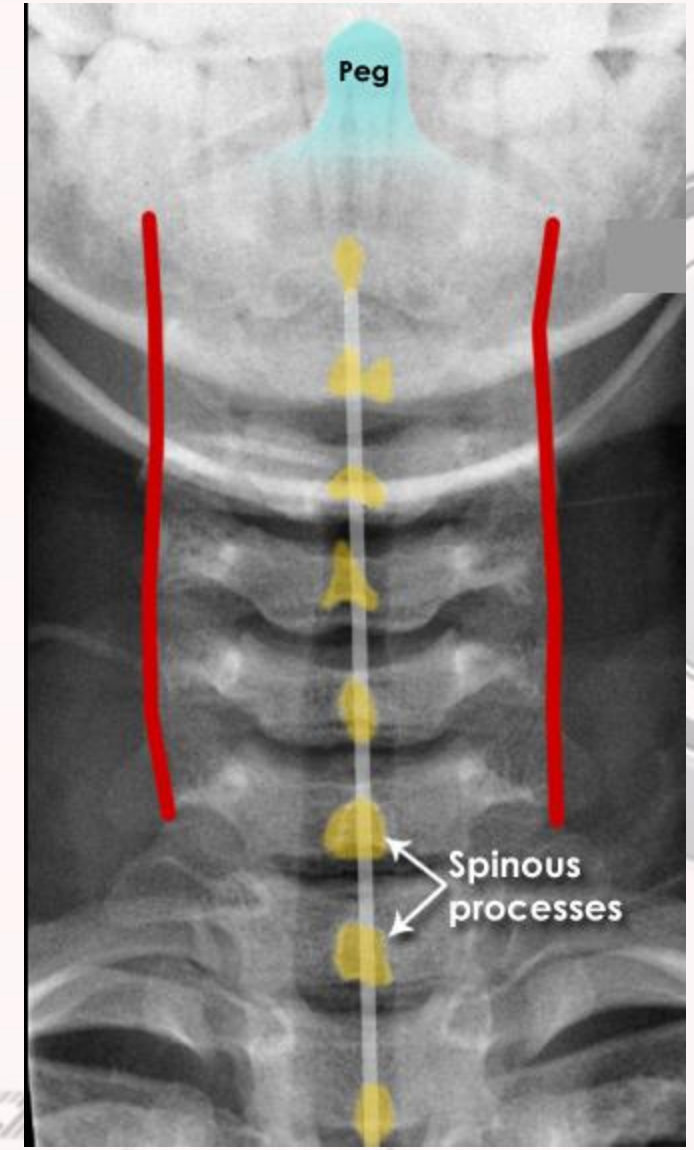
Normal Antero-posterior Cervical Spine View



نيجي بقى نبص عليها
من ورا
عايزك تطبع الصورة
دي في ذهنك



Normal Lateral Cervical Spine View



لازم تبقى كل حاجة منظمة و موجودة في خط مستقيم

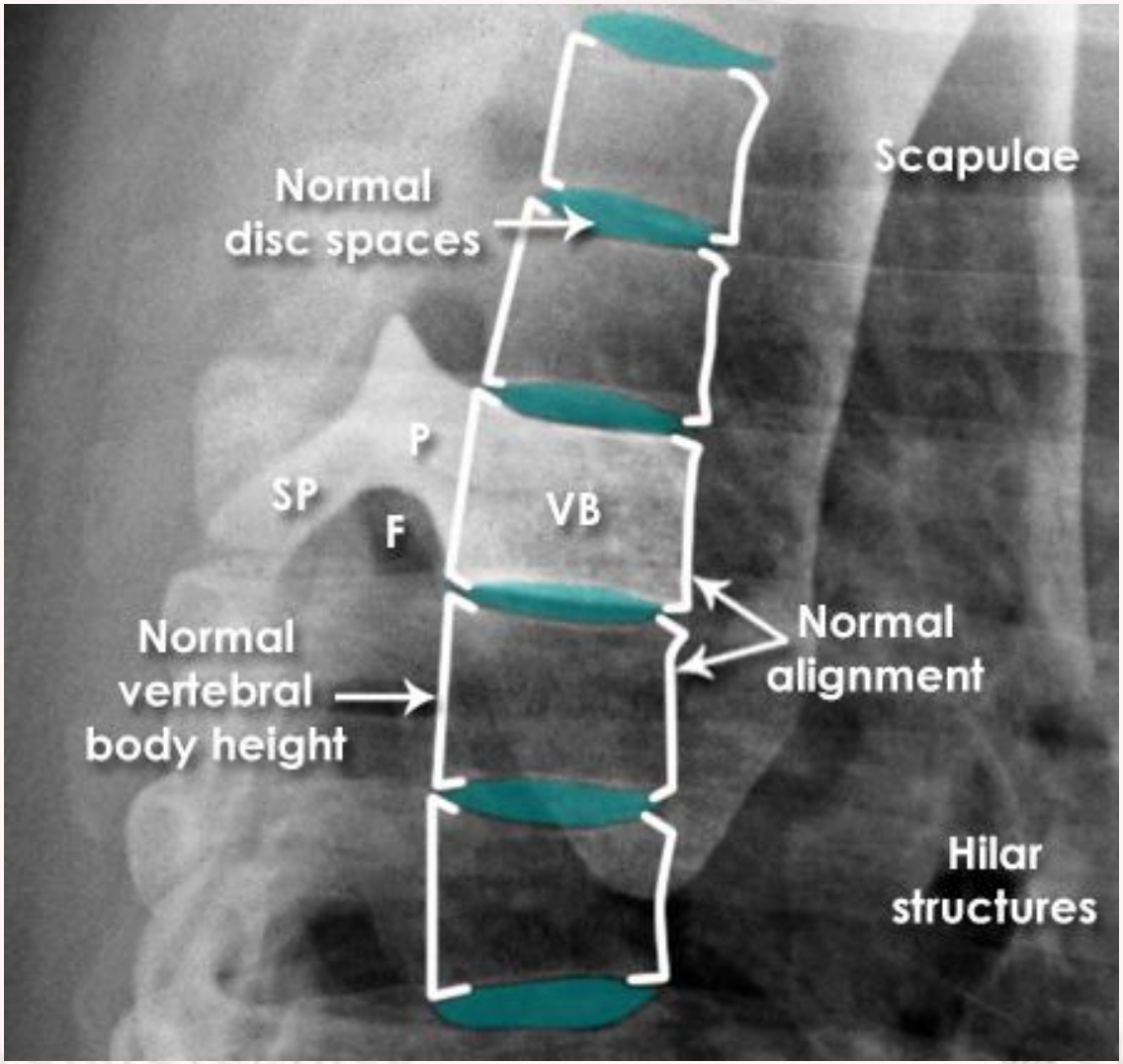
el spinous processes wel lateral margin of vertebrae wel pedicles

Normal Lateral Thoracic Spine View





Alignment w discs eshta
bas mohem awy tebos 3ala 7arf el “F” da which stands for formen of spinal nerve exit
و دي مهمة اوي عشان لو اتقفلت يبقى النيرف اتضغط و باظ



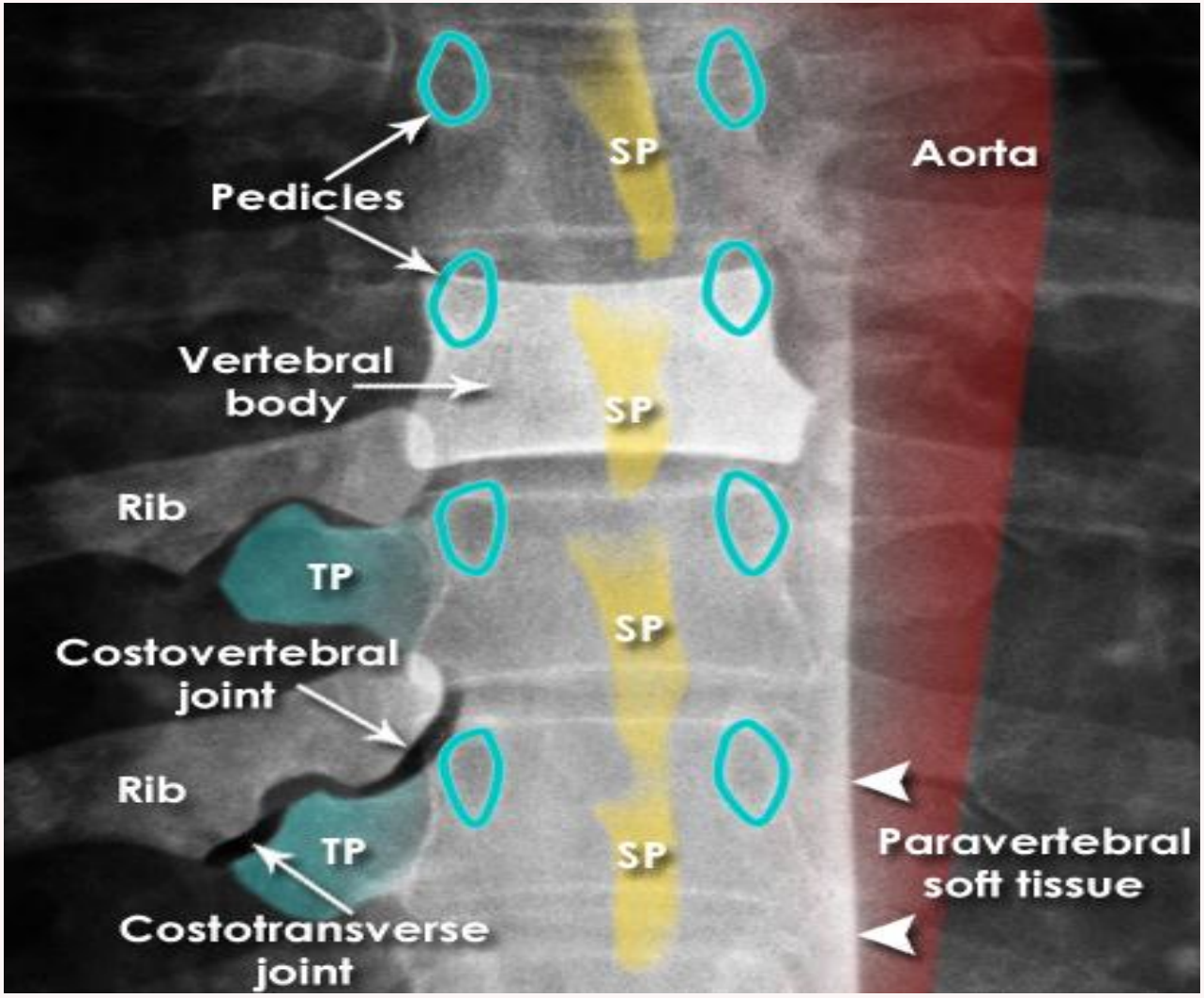


Normal Antero-posterior Thoracic Spine View



CrystalGraphics

Note the uniform spacing between each 2 pedicles



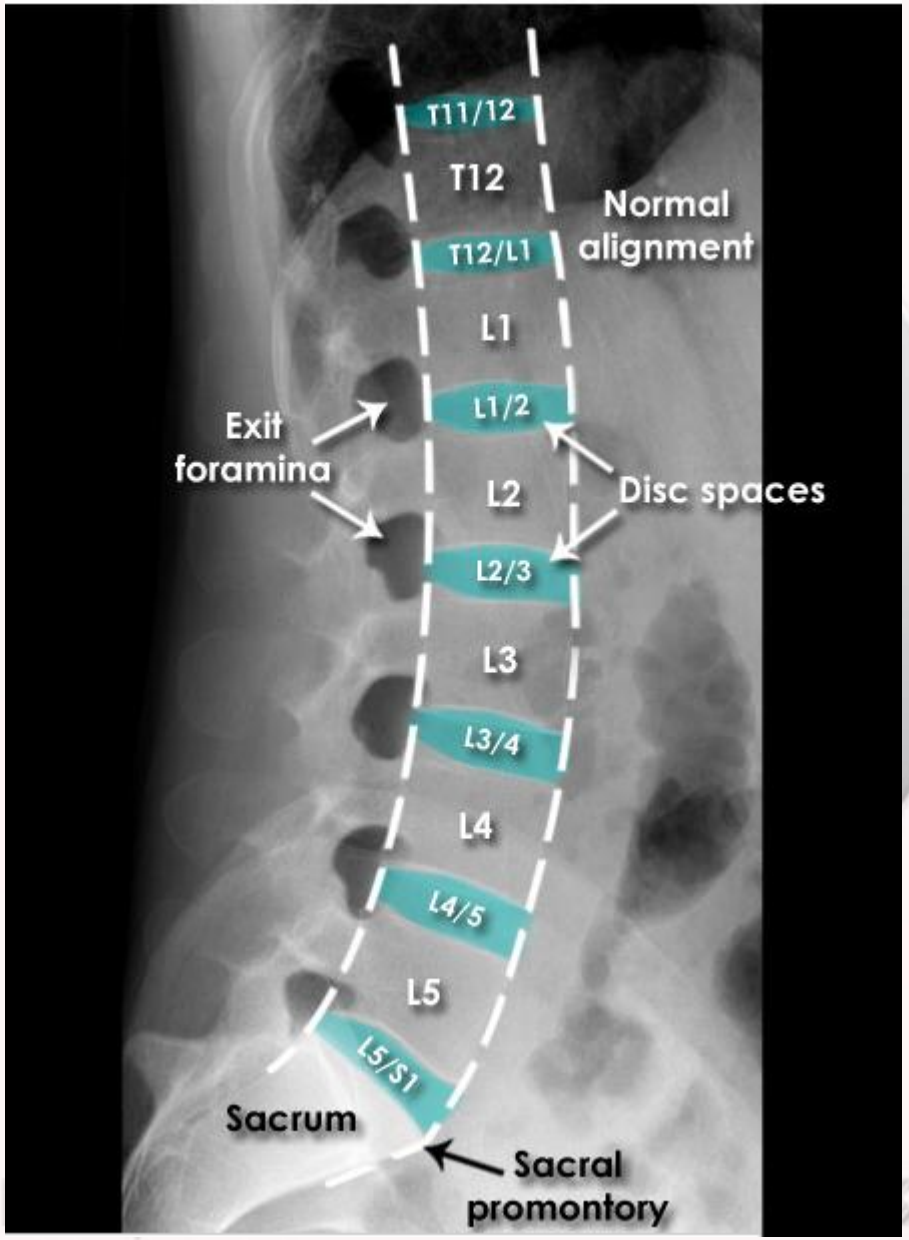


Normal Lateral Lumber Spine View





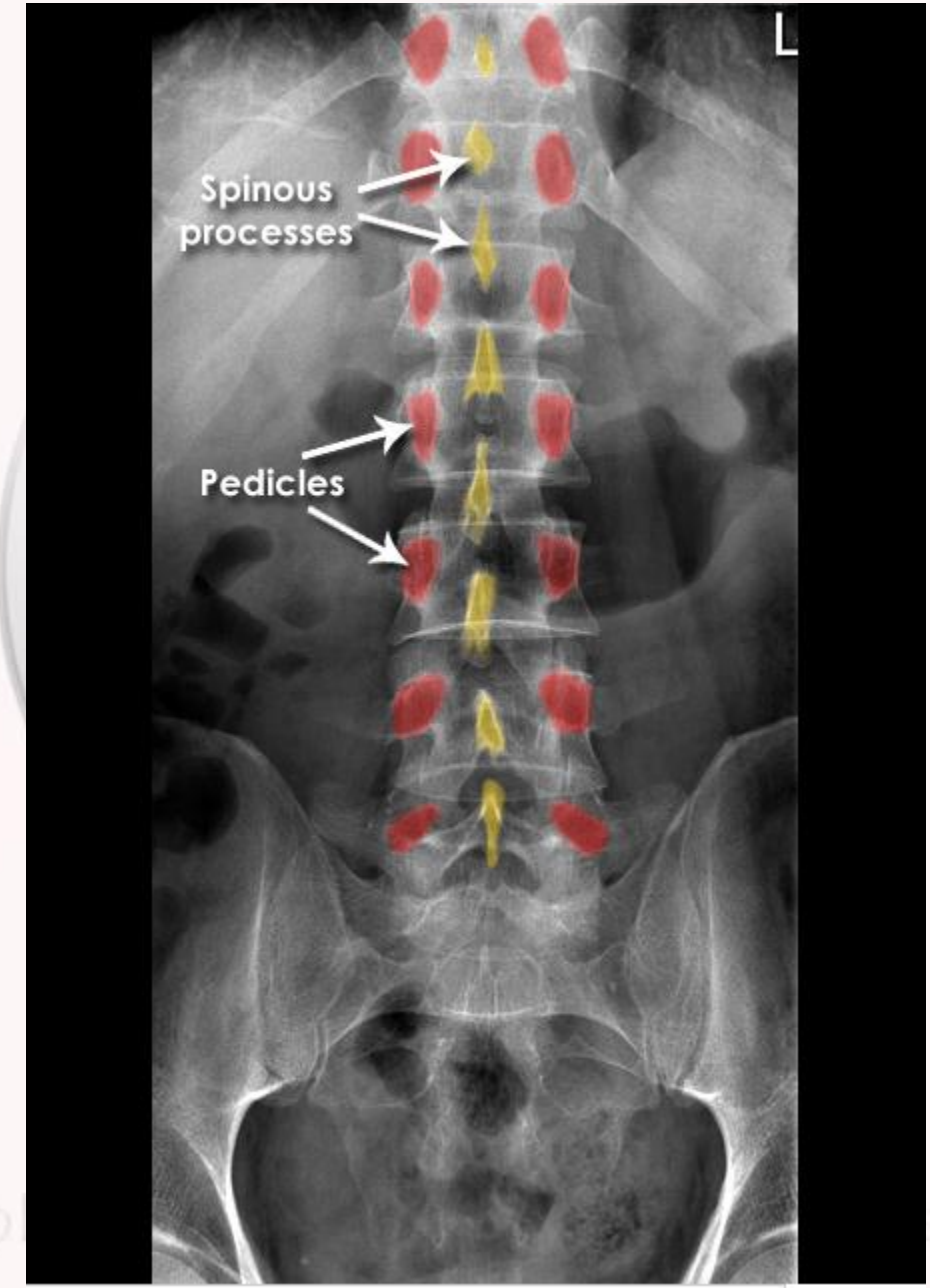
nafs el kalam … note el alignment wel foramina



Normal Antero-posterior Lumber Spine View



nafs el kalam … note el spacing between pedicles and spines >>>> UNIFORM



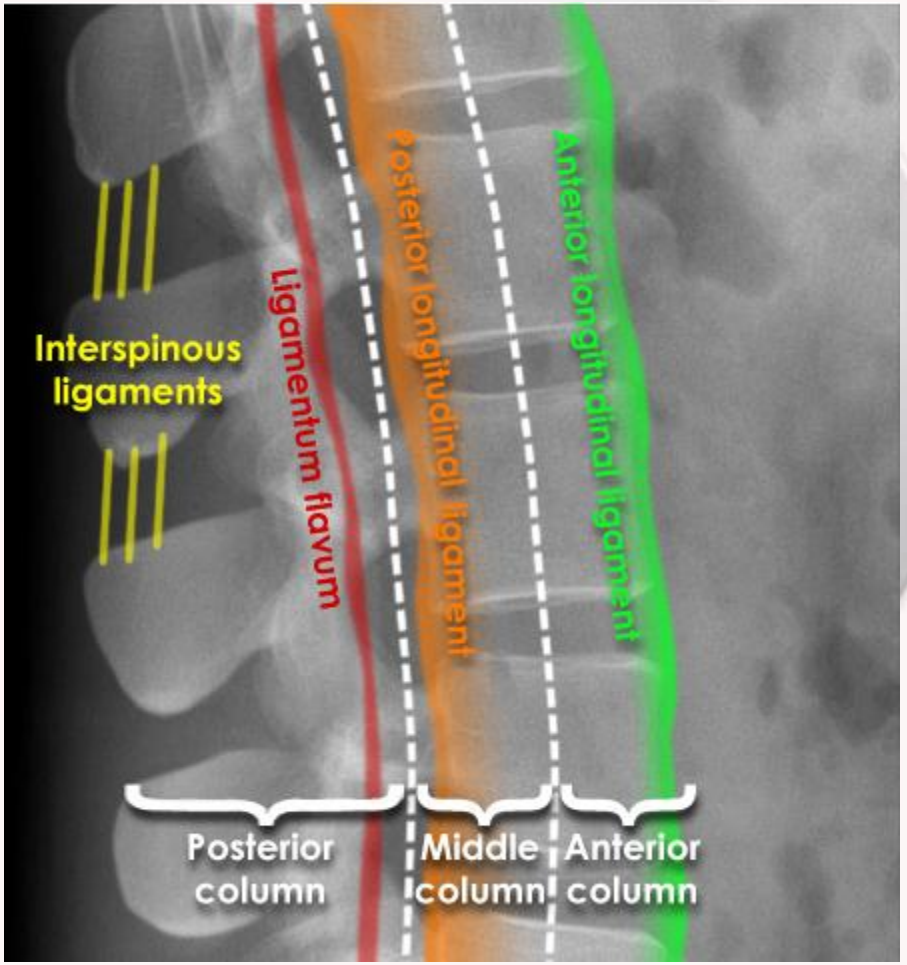


نركز بقى في الحتة الجاية دي



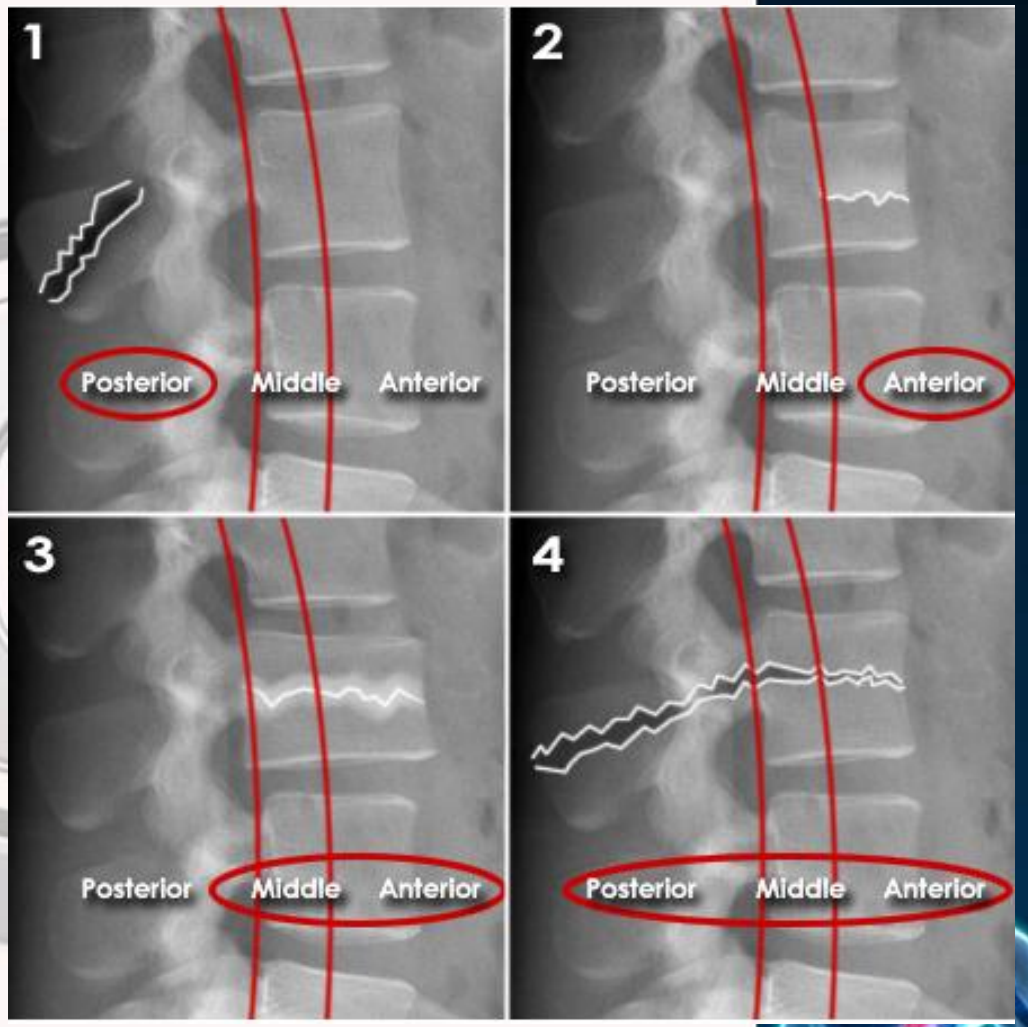


3 column model



Leeh ba2a 2olna 3 column model w beta3 ???
3ashan lamma ye7sal fracture fe 1 column bas … yeb2a de 7aga stable ….. w da zy el Wedge fracture (2) w da el Rx beta3o conservative

enama lamma ye7sal fracture fe aktar mn column yeb2a de 7aga unstable w needs surgical intervention zy el chance(4) wel burst (3)



ندخل بقى في الأبنورمال

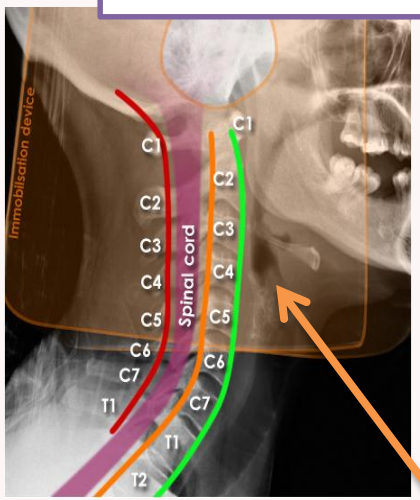


الصورة دي مش علينا
بس حطيتها عشان
عايزك تعرف تحدد
الكسر او الابنورماليتي
لوحدك

قبل ما تقلب ركز كويس
اوي في الصورة و حدد
المشكلة

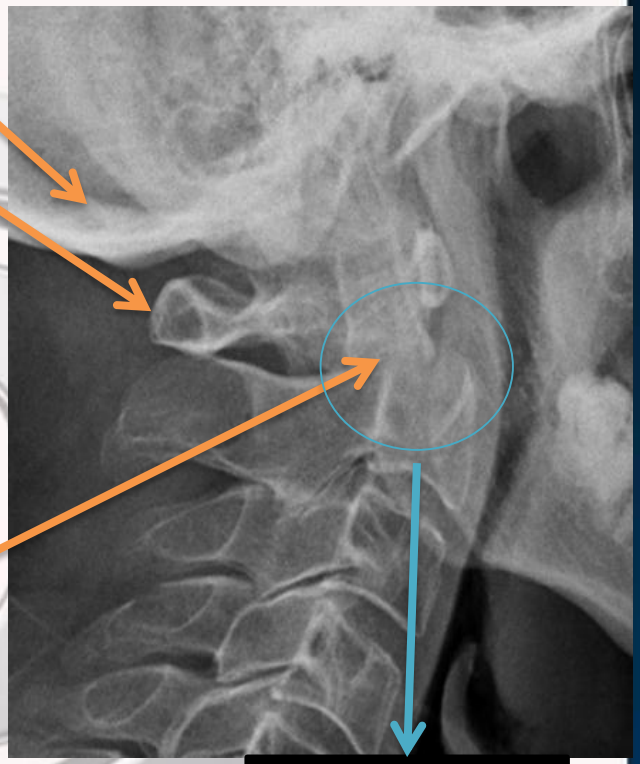


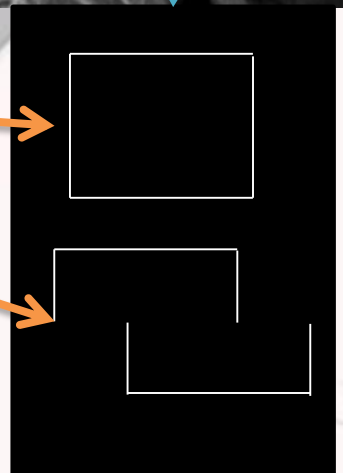
٥٠ % من حلك للسبوت يعتمد على معرفتك للمكان بتاع الصورة دي



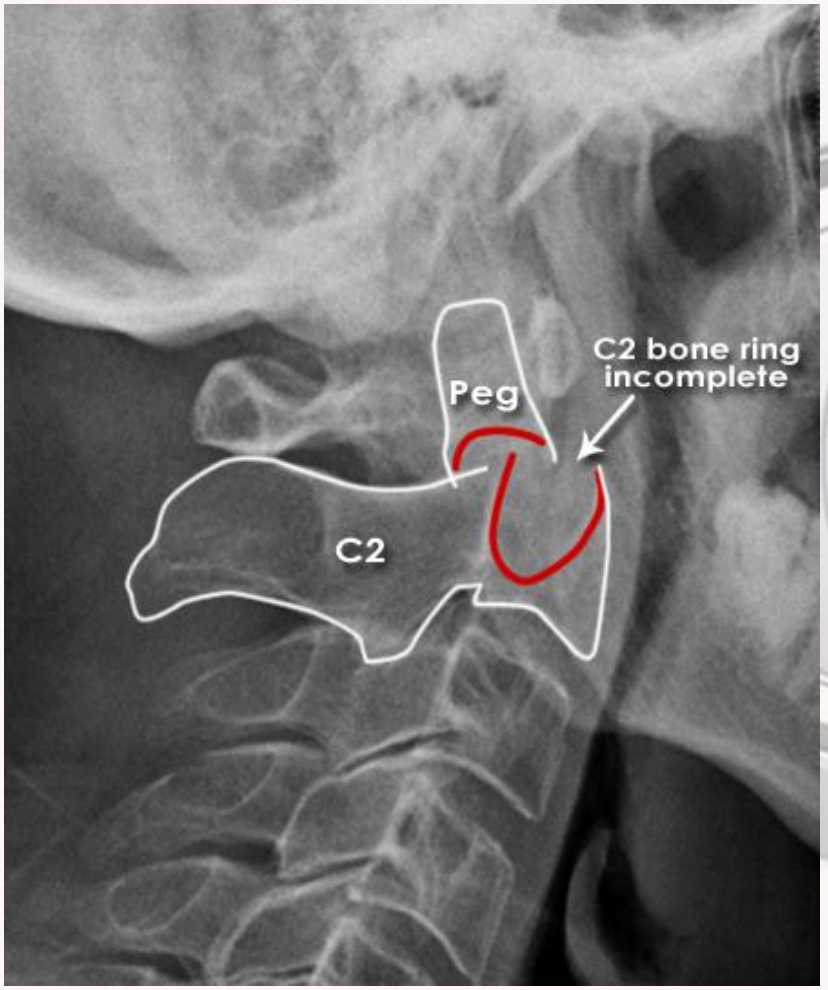
انا واخد بالي ان

- في جمجمة
- و في بزابيز تحتيها
- يبقى انا اكيد في cervical spine
- بعد كدة هنمشي مع الخط اللي ادام و الخط اللي وراه
- لاحظت ان الخطين اتقطعوا هنا
- و كمان المفروض ان القشرة او الcortex اللي هيا لونها ابيض اوي دي ... المفروض انها تكون متوصلة ببعضها كدة
- بس احنا لاحظنا انها اتكسرت عن بعضها كدة









من خلال الكلام اللي فات
ده عرفنا ان الصورة دي
fracture of odontoid

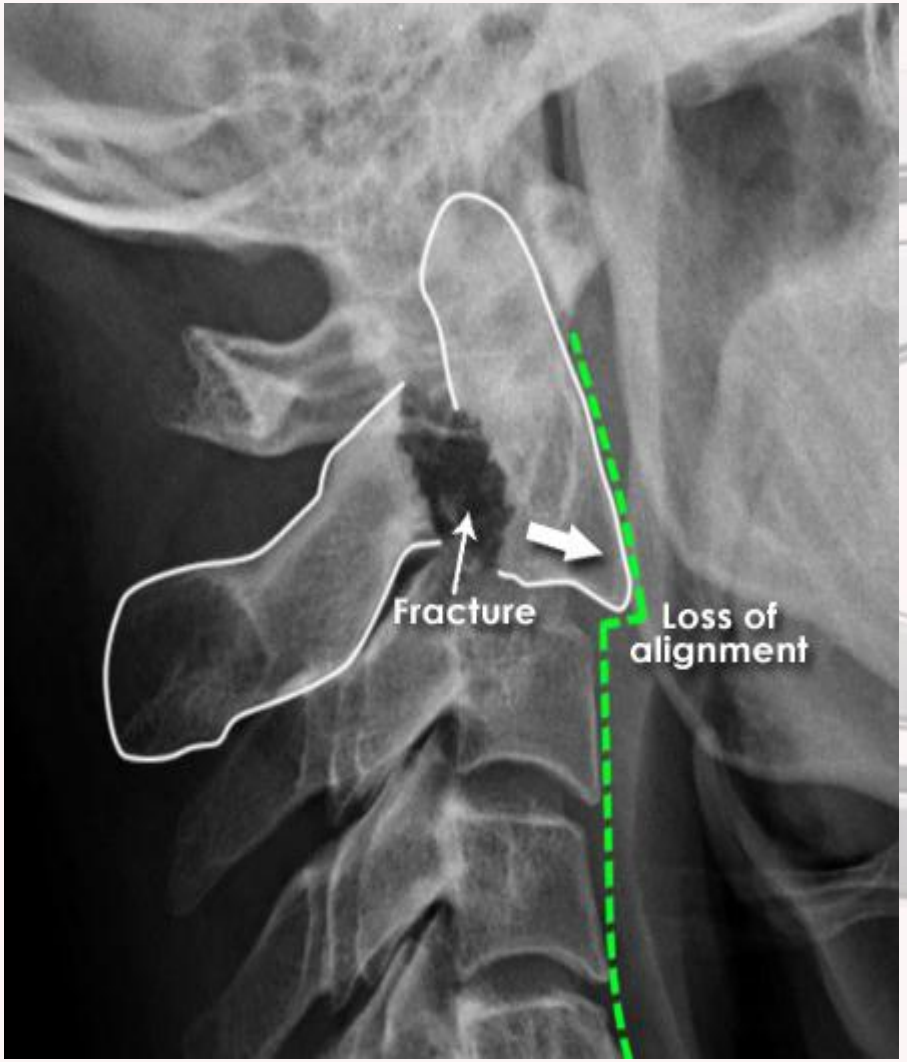
دي مش علينا بس الكلام
اللي قلناه في السبوت اللي
فاتت ده تقريبا أساس لكل
شغلنا في العضم بعد كدة





دي بردو مش علينا
بس عايزك بردو
تتعرف على المشكلة
فين بنفس الطريقة اللي
اشتغلنا بيها المرة اللي
فاتت



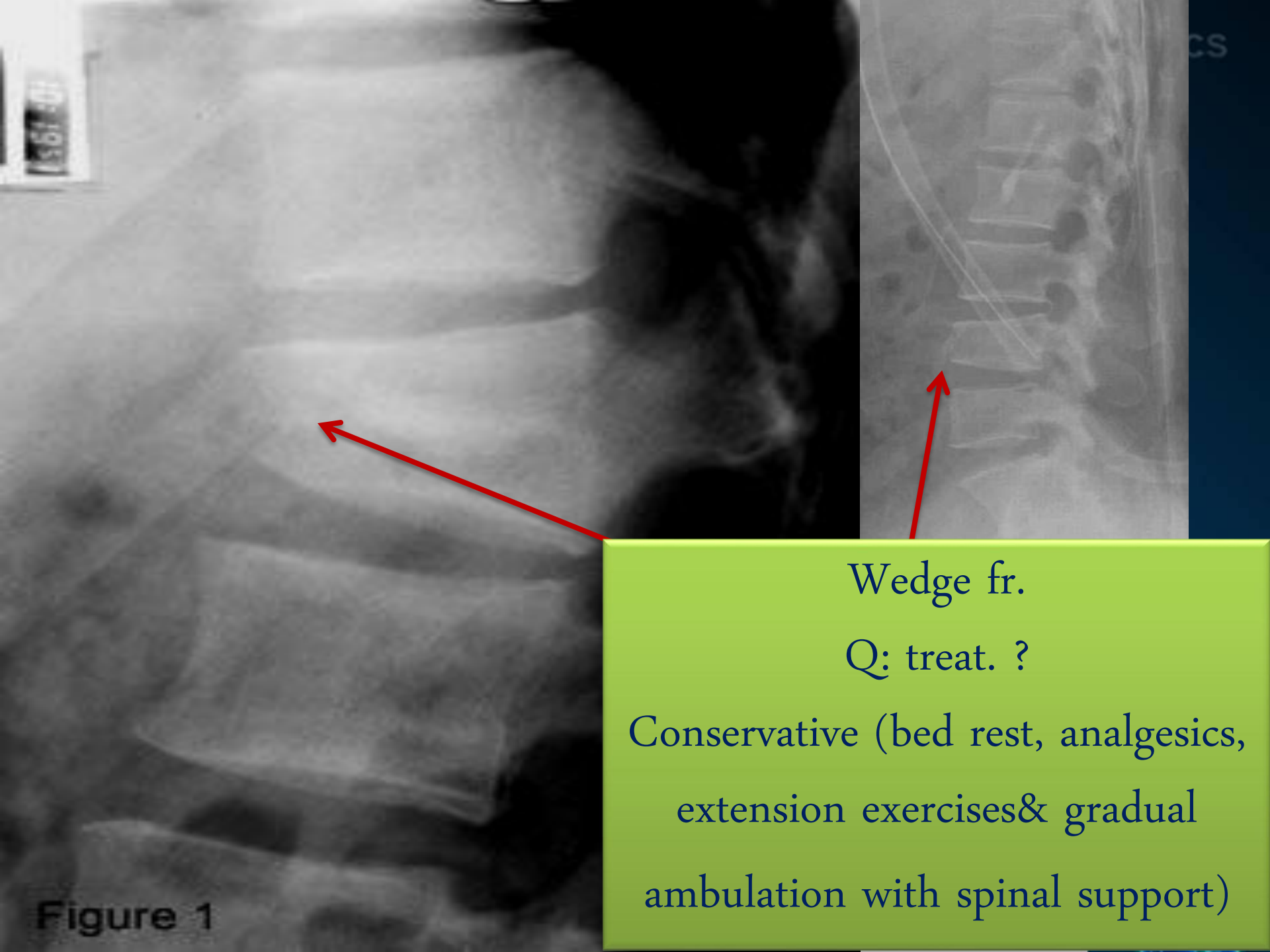


طالما الاساسيات معاك
يبقى ان شاء الله عمرك
ما هتغلط

الاساس اننا بنمشي
على الخط الادام و
اللي وراه و لقينا هنا
كسر في الفقرة رقم ٢




ايه دي ؟؟
Figure 1



Wedge fr.

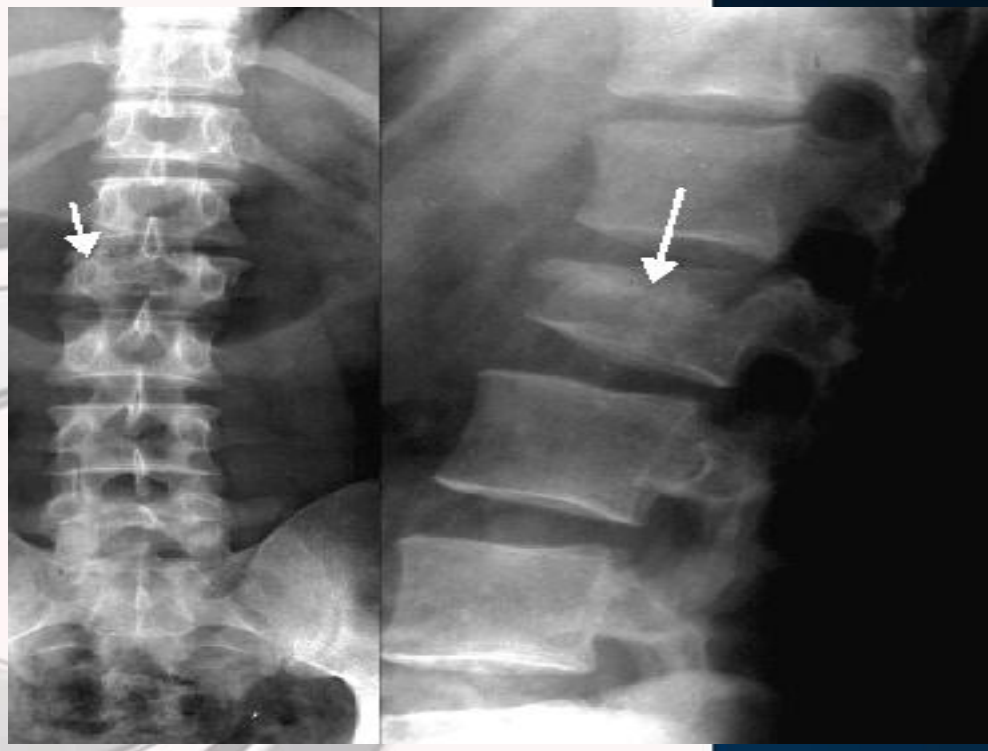
Q: treat. ?

Conservative (bed rest, analgesics, extension exercises& gradual ambulation with spinal support)



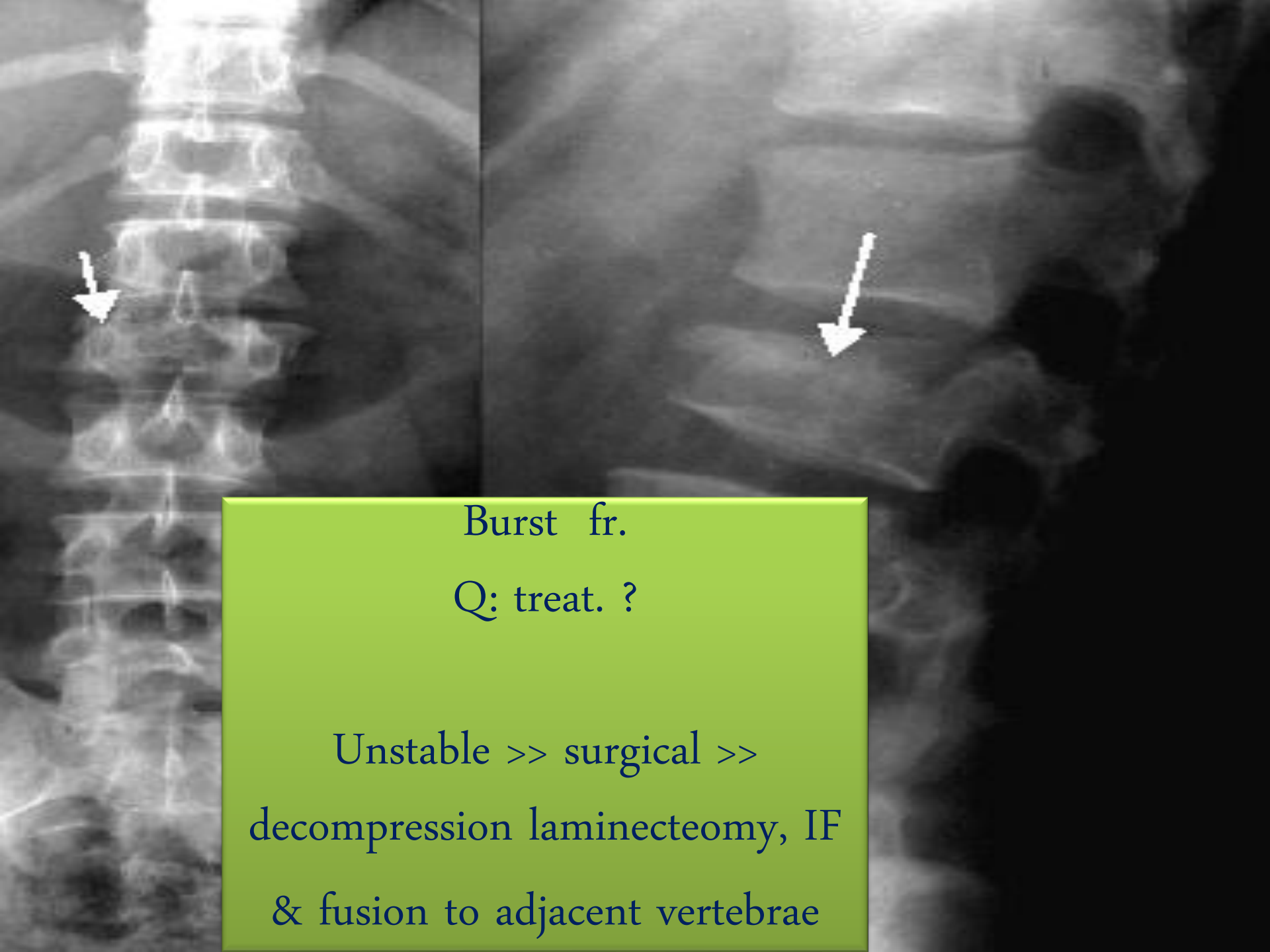
de ta2reban mesh far2a 3n el wedge fel shakl el lateral …. Bas e7na konna metef2een en el wedge stable 3ashan only 1 column is affected

enama de gayebly el AP view 3ashan ye2oly eno 7asal affection lel middle column kaman … eshta yeb2a de burst fracture



N.B el burst dayman feha lateral + AP views

enama el wedge feha lateral view bas 3ashan heya only 1 column



Burst fr.

Q: treat. ?

Unstable >> surgical >>

decompression laminecteomy, IF

& fusion to adjacent vertebrae

Burst Fracture CT scan (CT w salak :P)





شايف السي تي موضح اوي ان الفقرة اتفرتكت و ده طبعا محتاج عملية تثبيت

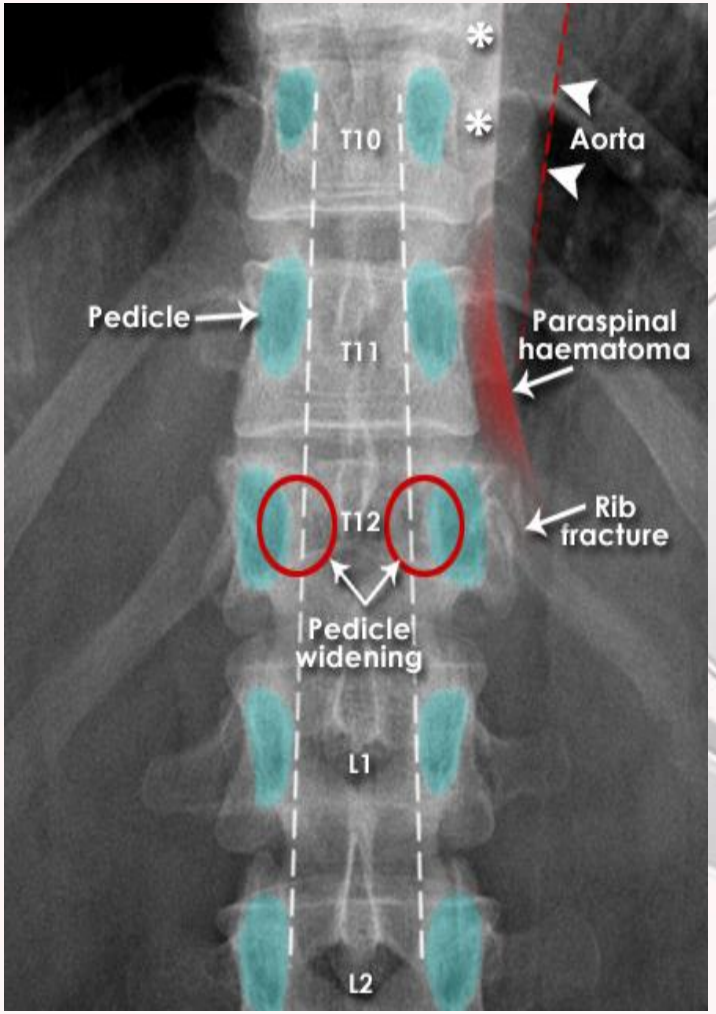
Burst fracture

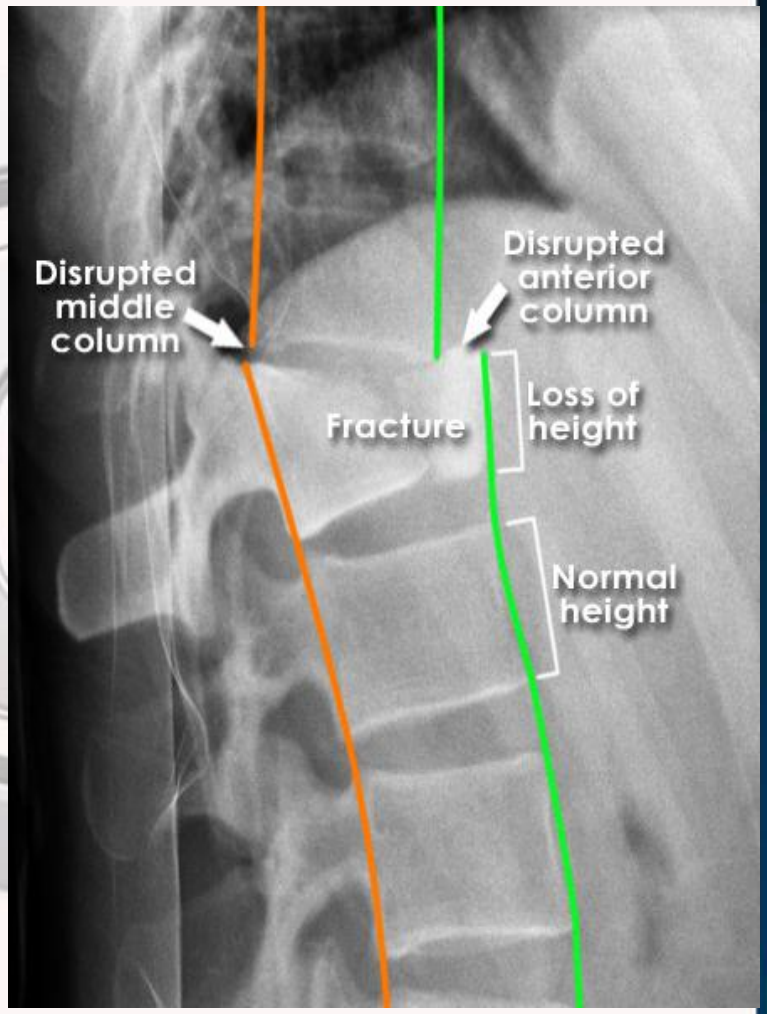






Burst fracture





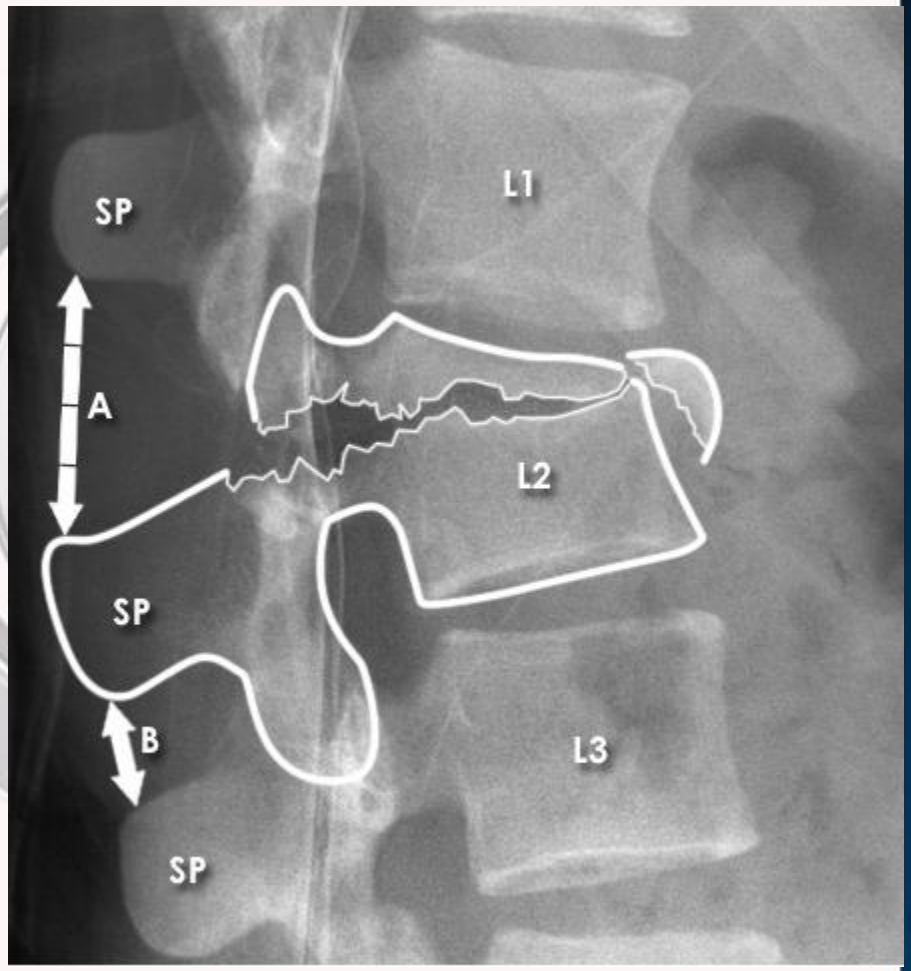


3yzak bas ta5od balak ezzay el burst bey2asar 3ala aktar mn column

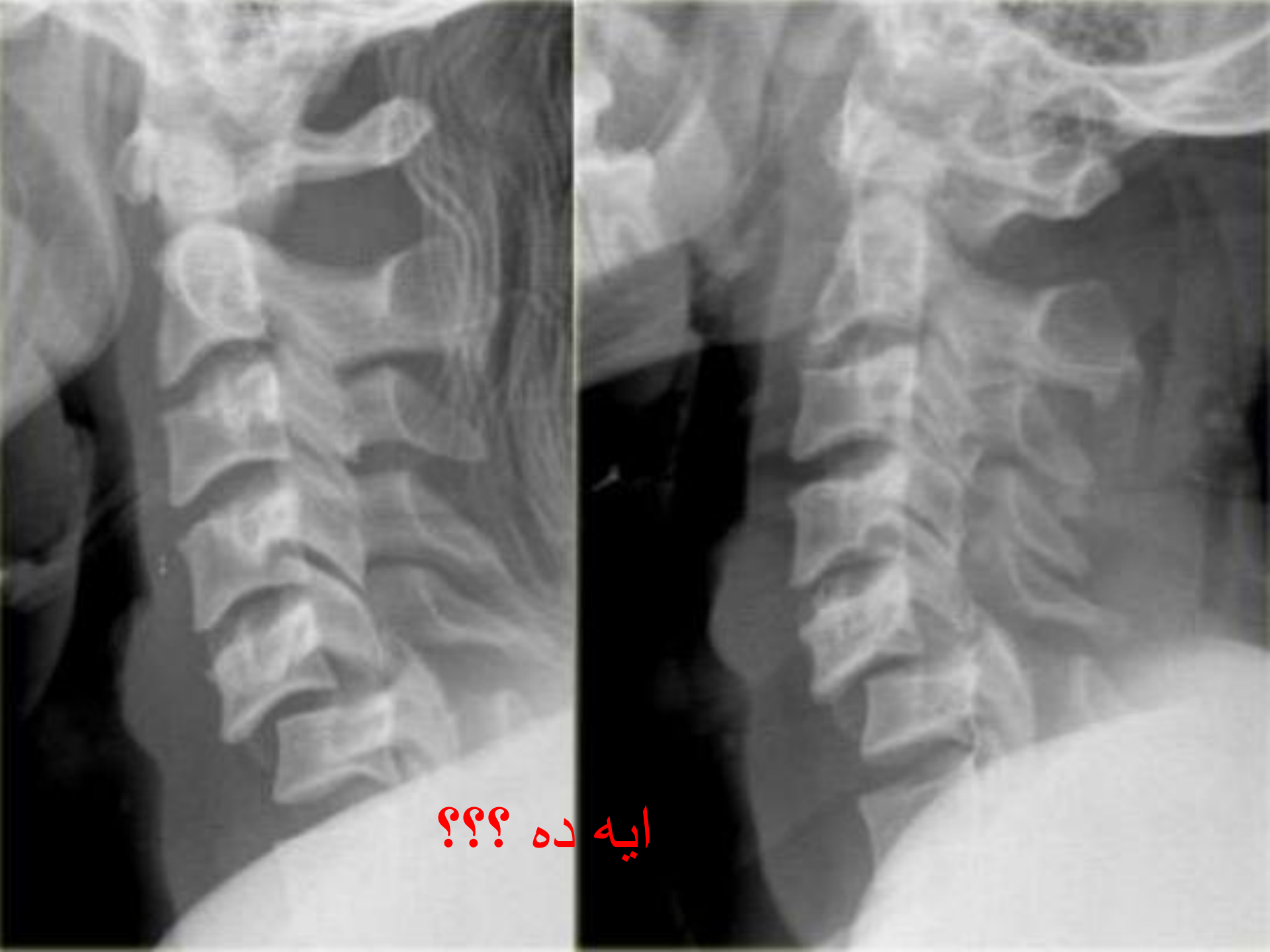

اوعي تقولي انك
مش واخد بالك
من اللي حصل
هنا ؟؟؟

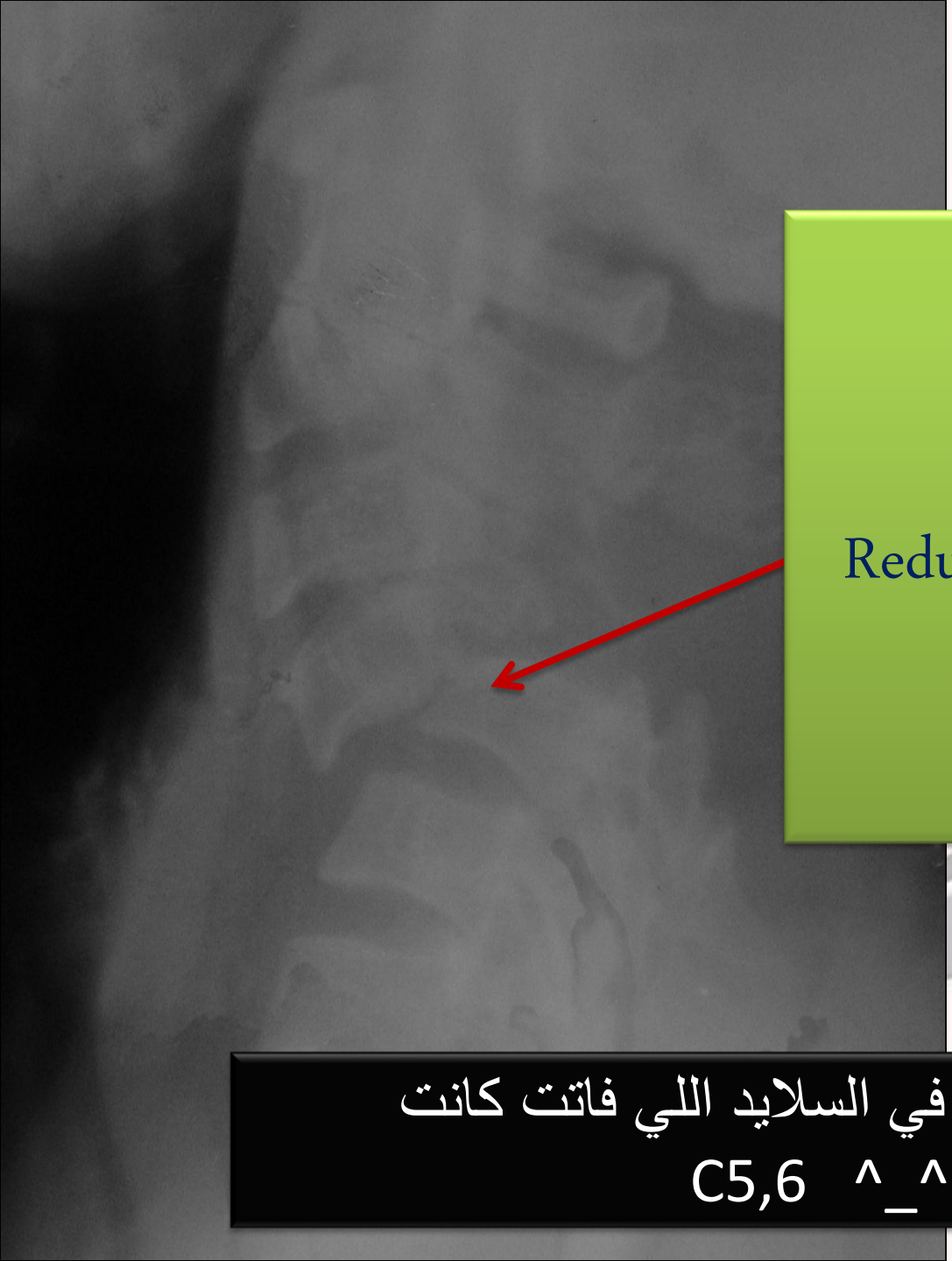
Chance fracture

شايفين الفقرة اتقسمت ازاي ؟؟






ایه ده ؟؟؟



fr.dislocation C4.5

Q: treat. ?

Reduction by skull traction, cervical collar with chin support

على فكرة اللي في السلايد اللي فاتت كانت C5,6 ^_^

In the memory of Dr. Mohammed El Ghandour





Done By

Hams Fekrey & Marwan El Sokkary

فريق المحاظ



Thank you

☺



Final x-ray revision



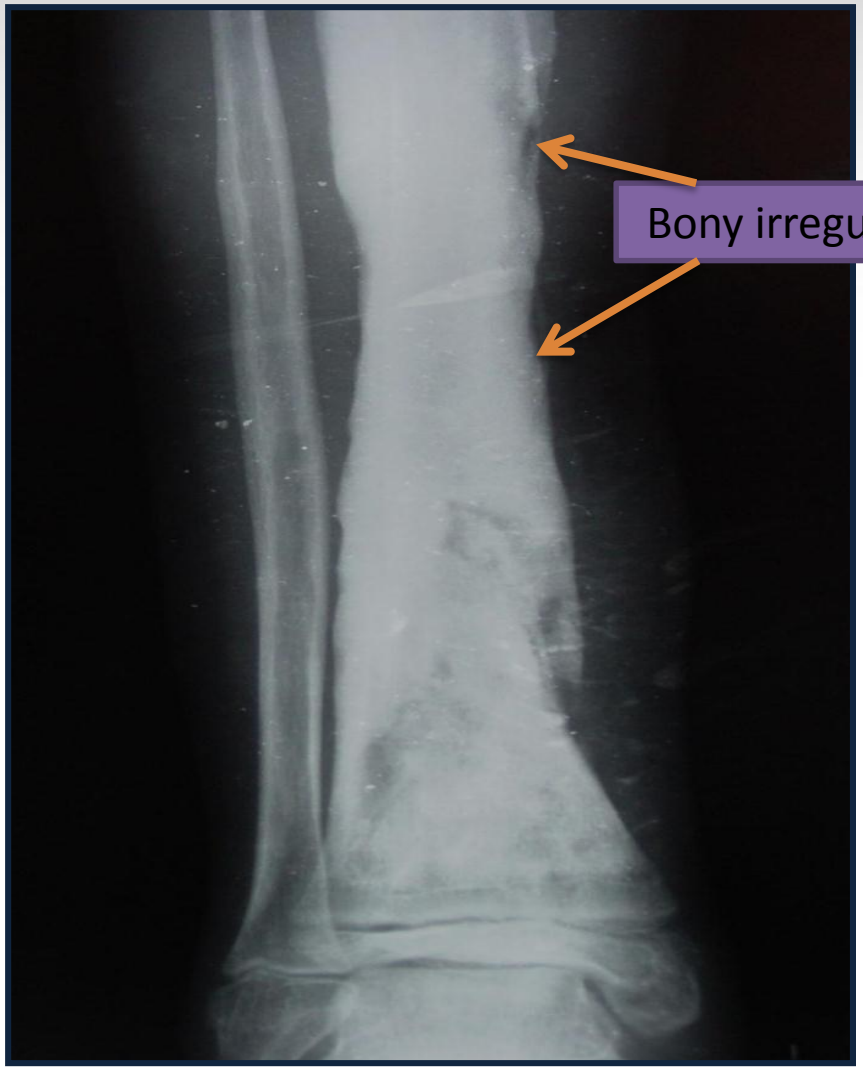


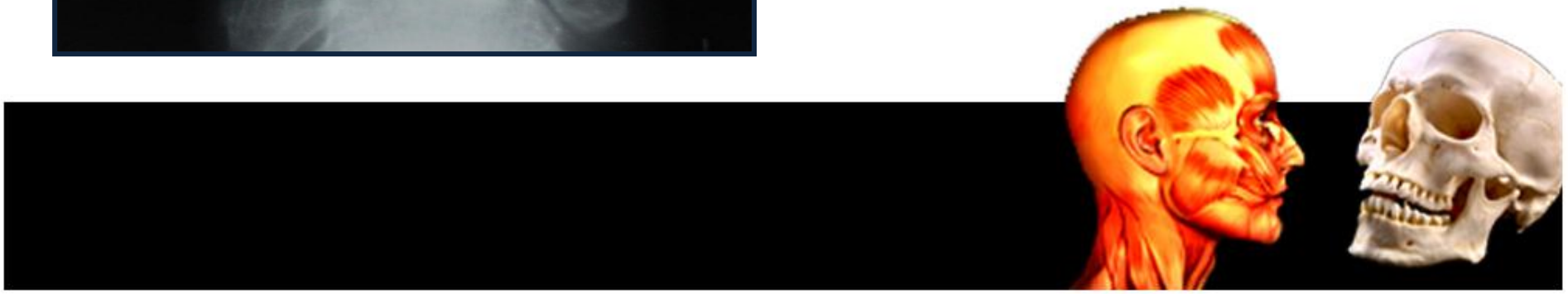

X-RAY OF DISEASED BONES

ايه دي ؟؟



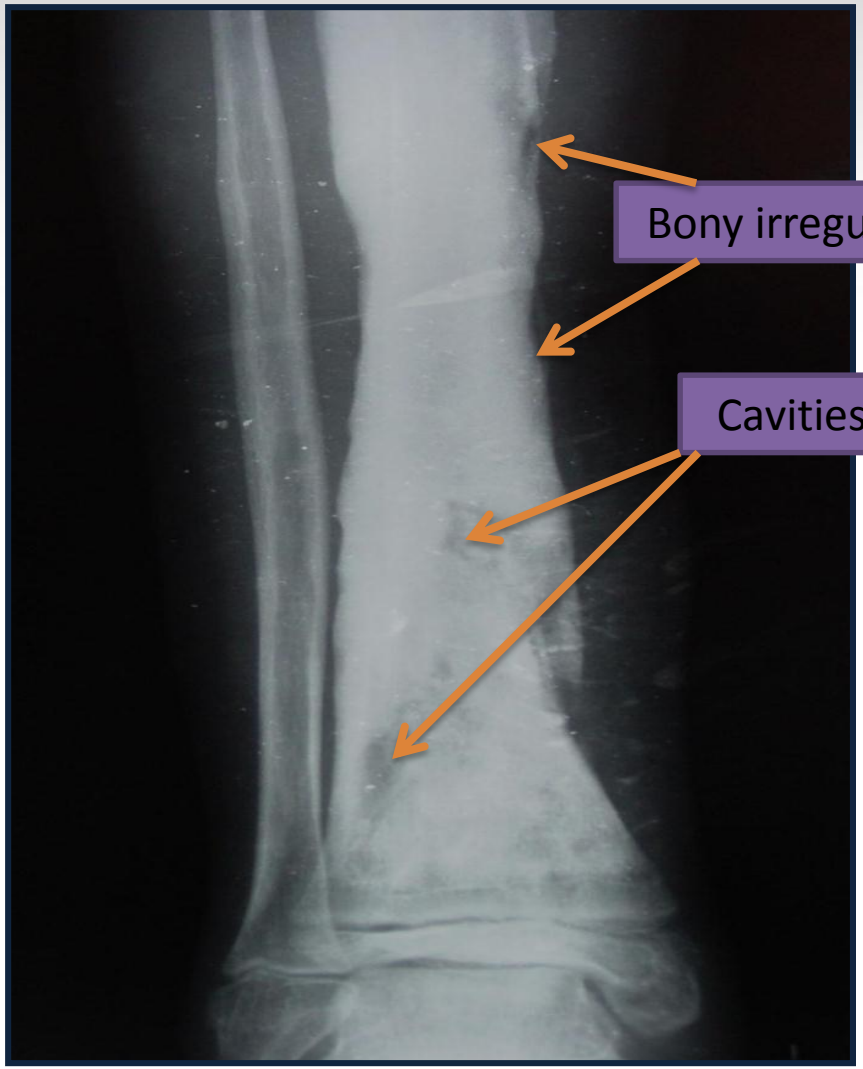
أول حاجة ناخد بالنا منها ان العضمة مش متساوية

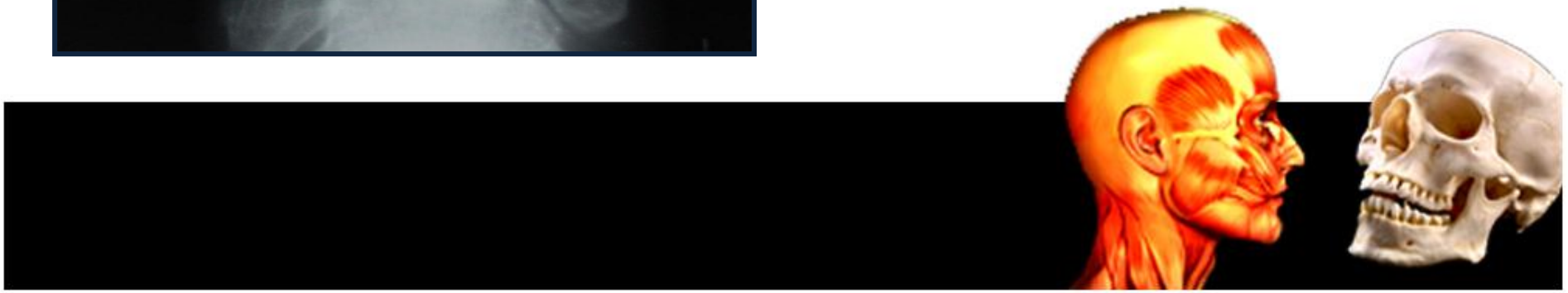




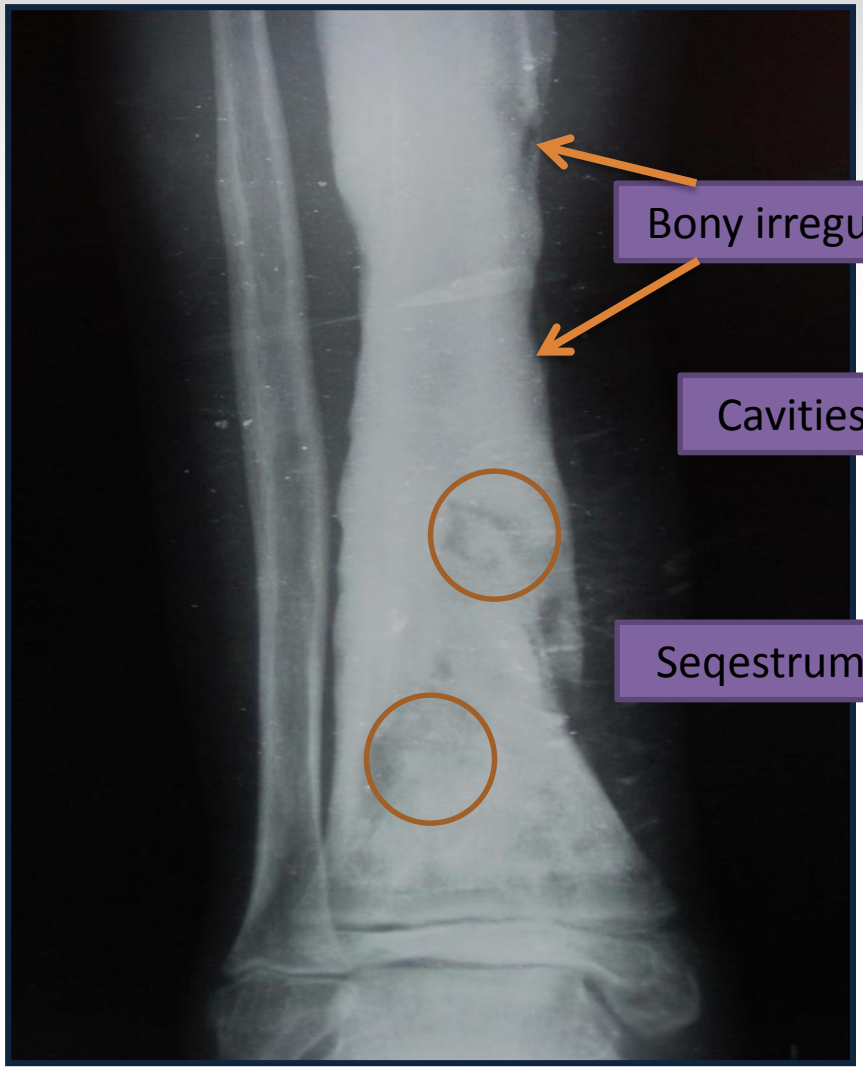
أول حاجة ناخد بالنا منها ان العضمة مش متساوية

و كمان لو ركزنا شوية هنلاقي في فراغات





أول حاجة ناخد بالنا منها ان العضمة مش متساوية



و كمان لو ركزنا شوية هنلاقي في فراغات

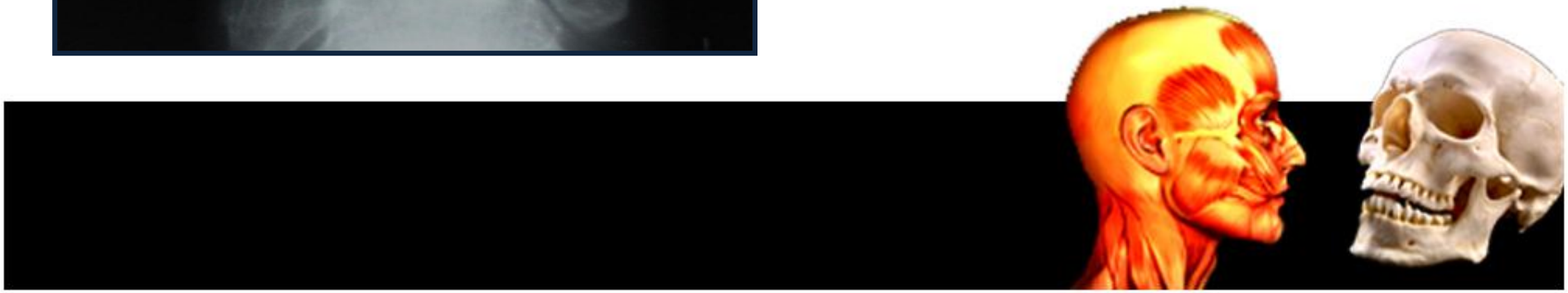
و لو حد بقى جامد هياخد باله ان الفراغات دي فيها حاجة بيضا

الحاجات دي اول ما تشوفها على طول تقول

Chronic Osteomyelitis

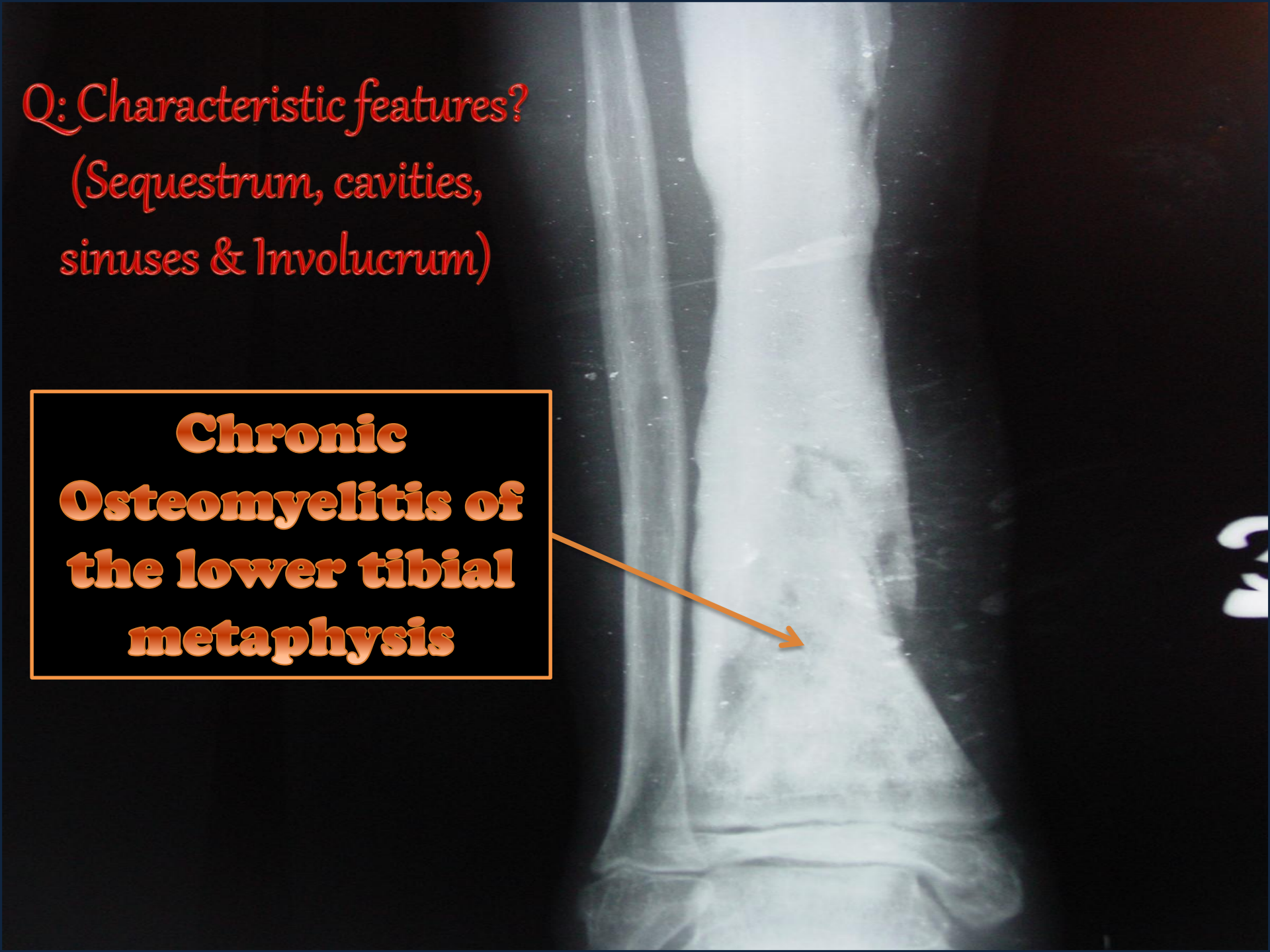
العضمة دي تحس كدة ان في فار فضل يقرض فيها من برا **irregularities** و من جوا **cavities**

ف ادالك المنظر ده

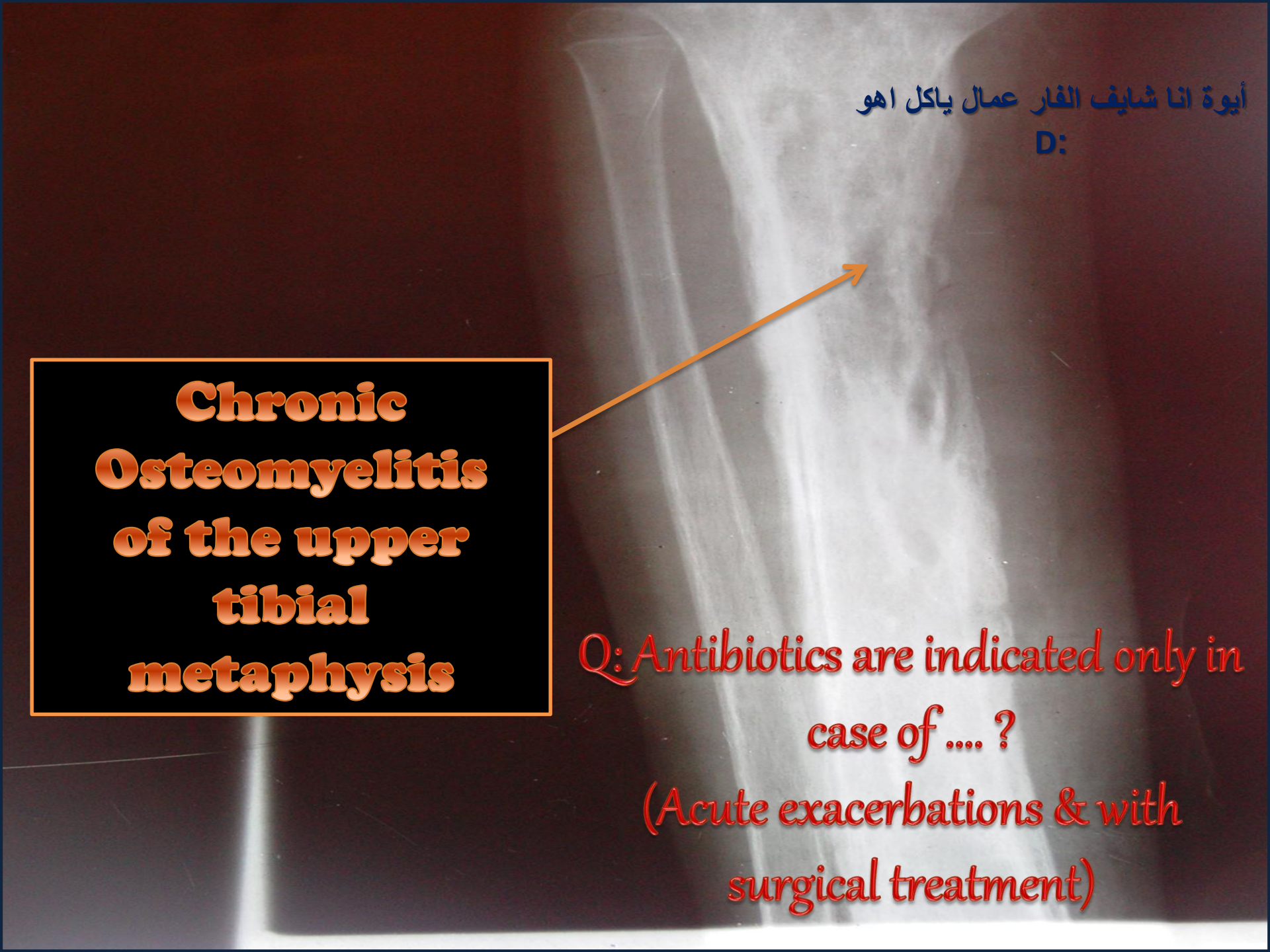


Q: Characteristic features? (Sequestrum, cavities, sinuses & Involucrum)

Chronic Osteomyelitis of the lower tibial metaphysis

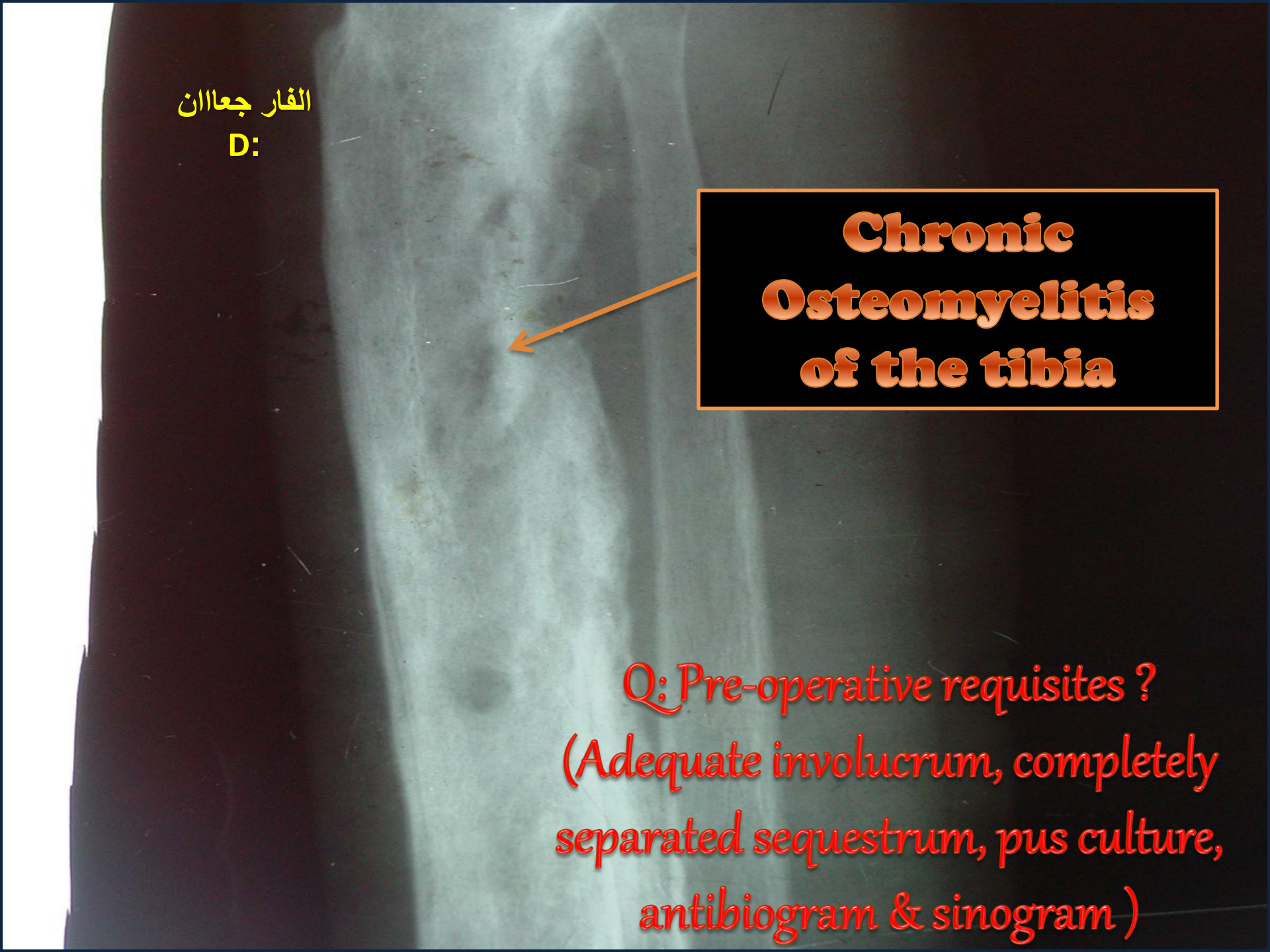


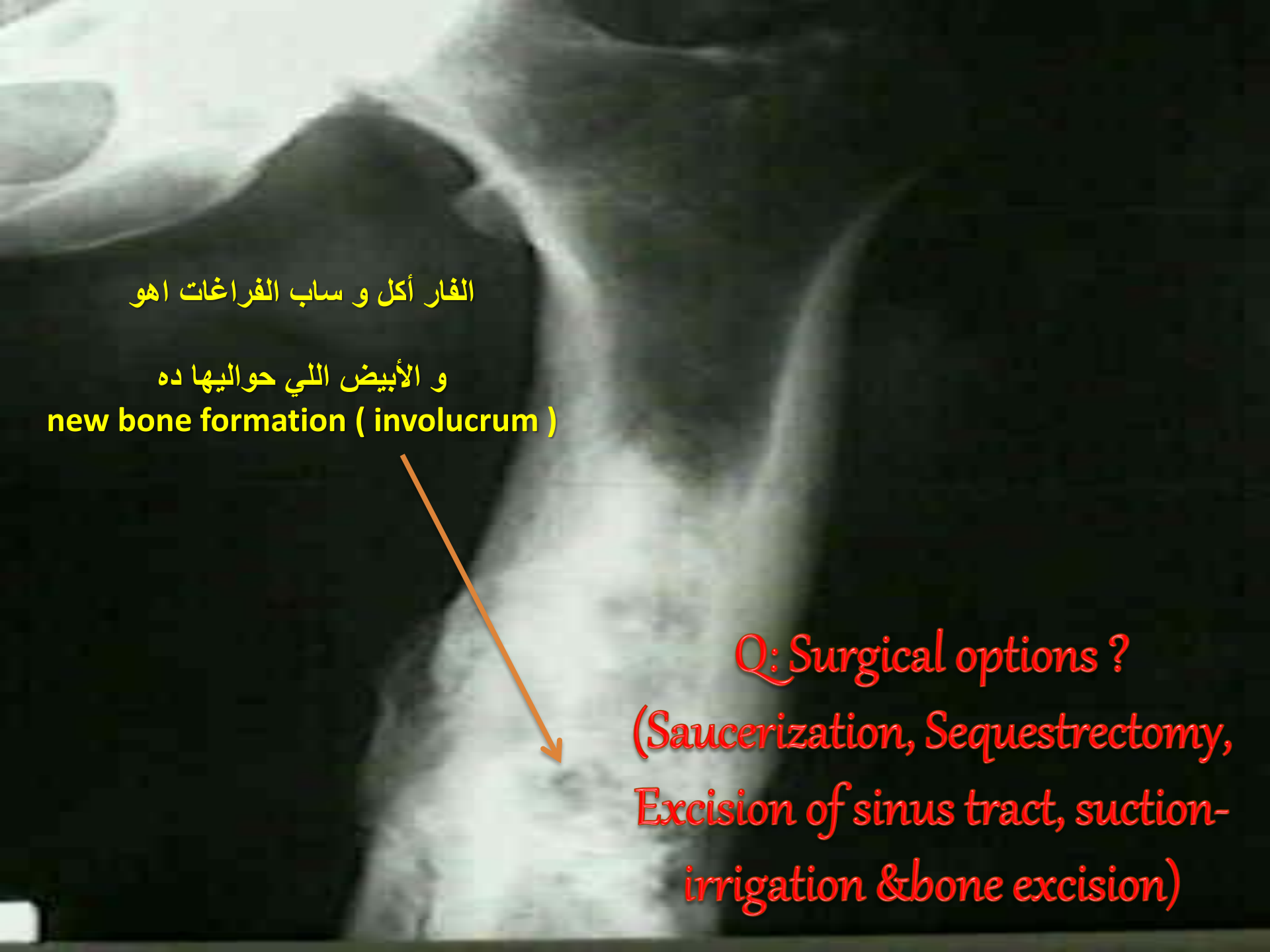
أيوة انا شايف الفار عمال ياكل اهو
D:



Chronic Osteomyelitis of the upper tibial metaphysis

Q: Antibiotics are indicated only in case of ?
(Acute exacerbations & with surgical treatment)


الفار جعاان
D:
Chronic Osteomyelitis of the tibia
Q: Pre-operative requisites ?
(Adequate involucrum, completely separated sequestrum, pus culture, antibiogram & sinogram)

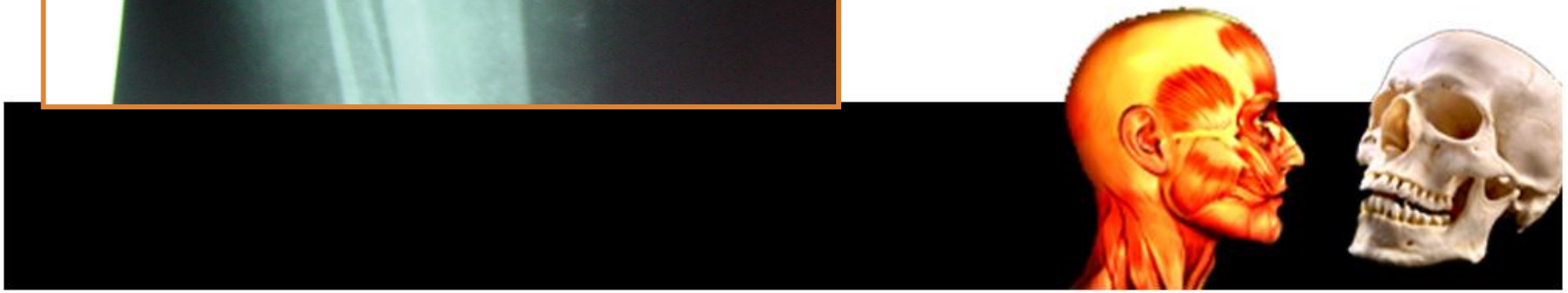

الفار أكل و ساب الفراغات اهو
و الأبيض اللي حواليها ده
new bone formation (involucrum)
Q: Surgical options ?
(Saucerization, Sequestrectomy,
Excision of sinus tract, suction-
irrigation &bone excision)


ايه دي ؟؟



ايه بقى مميزات السبوت دي

1) erosion of articular cartilage



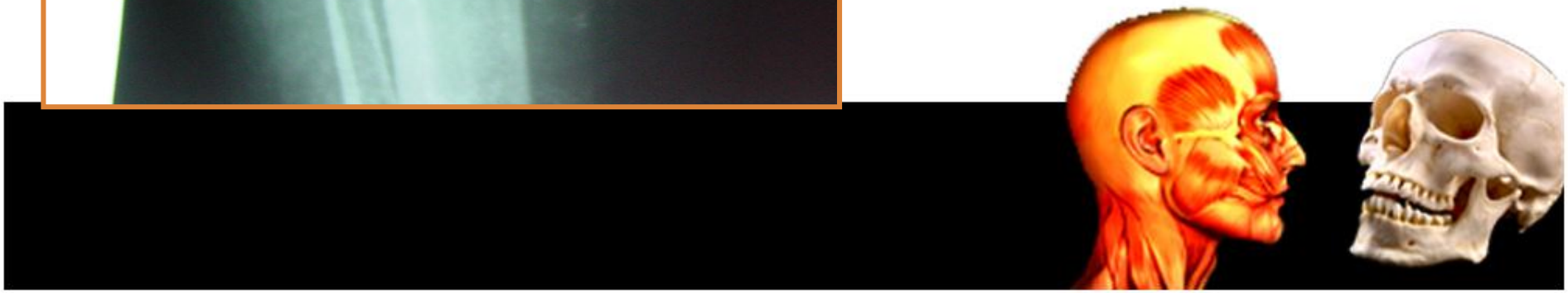


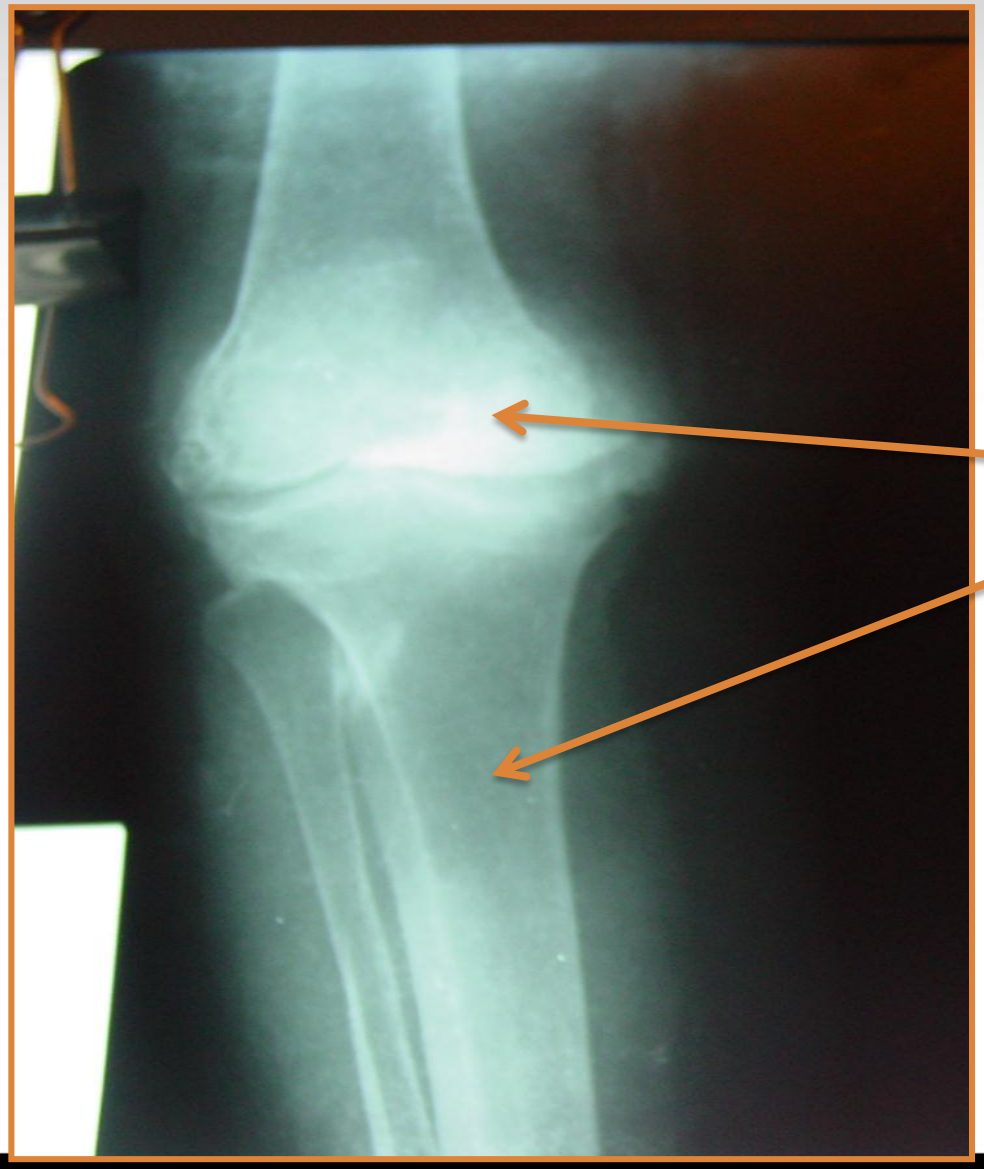
ايه بقى مميزات السبوت دي

1) erosion of articular cartilage

2) marginal osteophytes

و دي تحسها ويكأن المفصل بيطلع دخان :د





ايه بقى مميزات السبوت دي

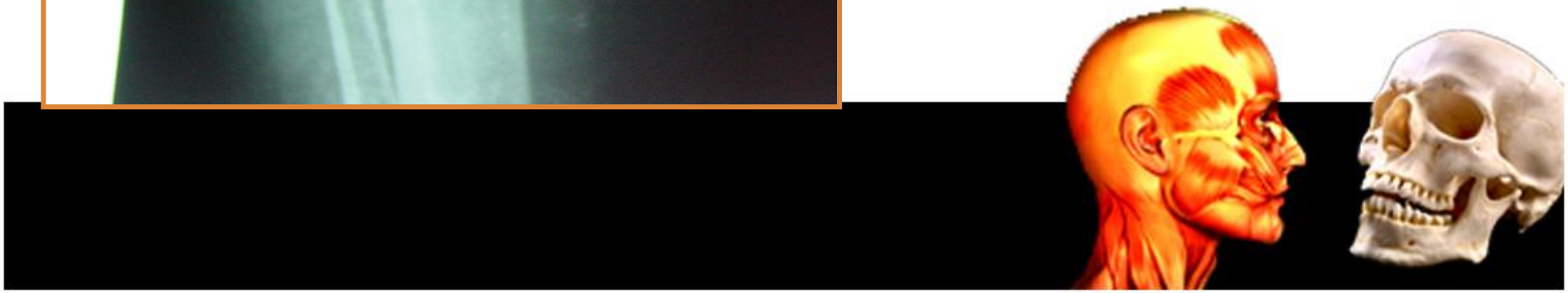
1) erosion of articular cartilage

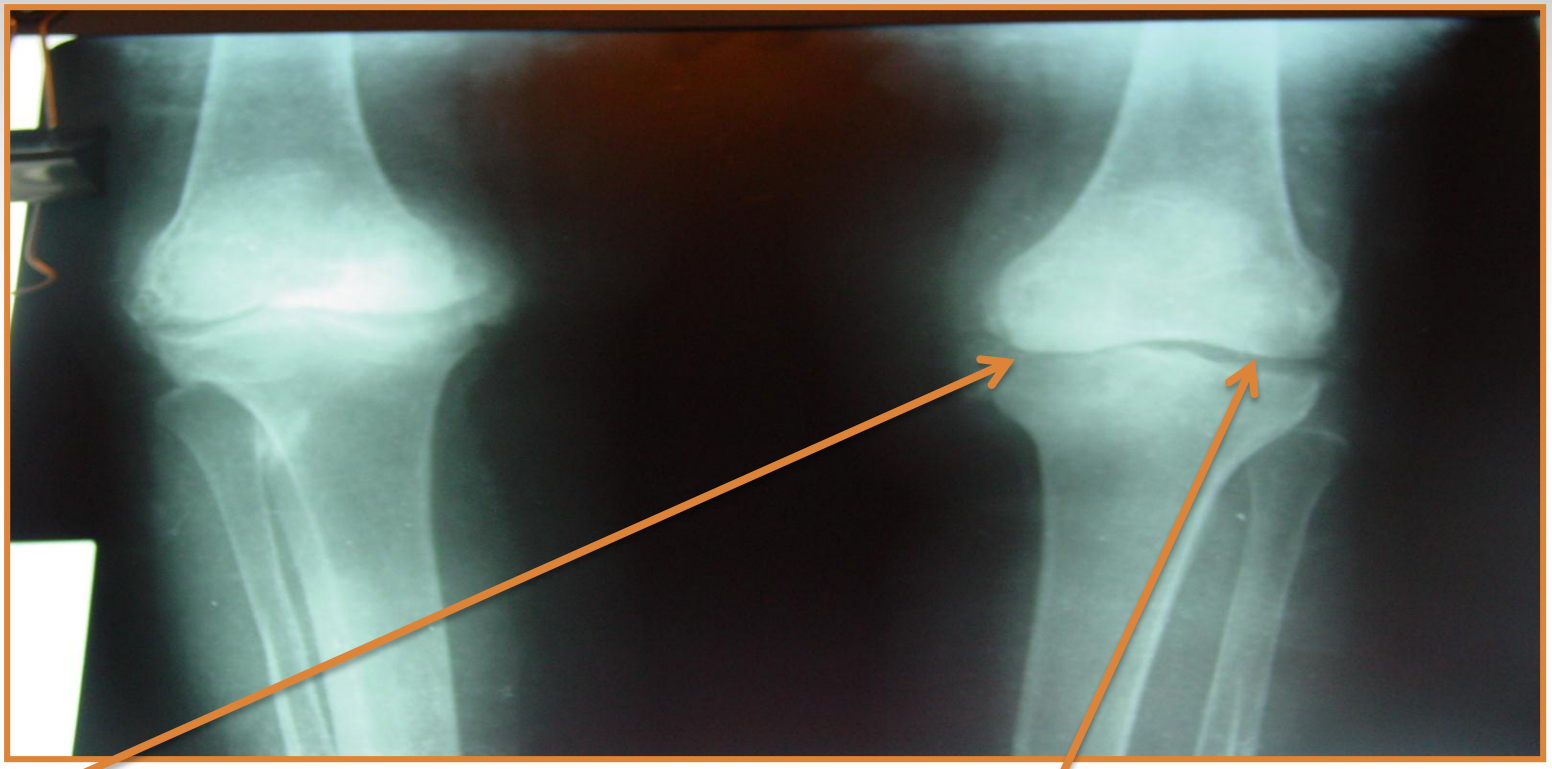
2) marginal osteophytes

و دي تحسها ويكأن المفصل بيطلع دخان :د

3) subchondral sclerosis

الحتة اللي حوالين المفصل هتلاقيها بيضا اوي مقارنة بباقي العضمة





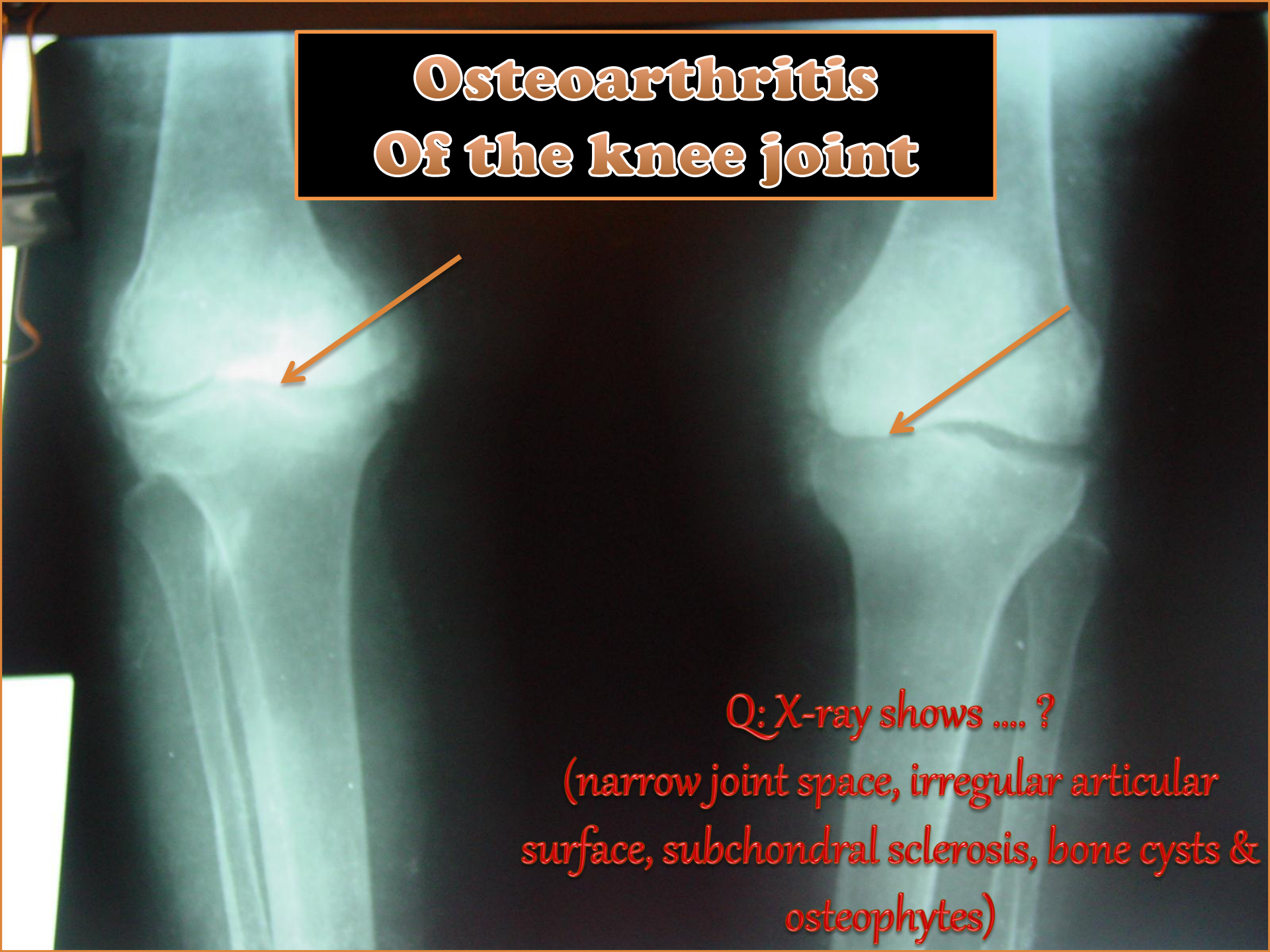
الطبيعي ان اي مفصل بيبقى فيه فراغ في الأشعة اللي هوا المفروض يكون الcartilage و لو الفراغ ده قل ... يبقى الكارتيليج دي اتاكلت و العضم بقى يحك في بعضه ... و ده اللي بيسموه خشونه في المفاصل

او

Osteoarthritis



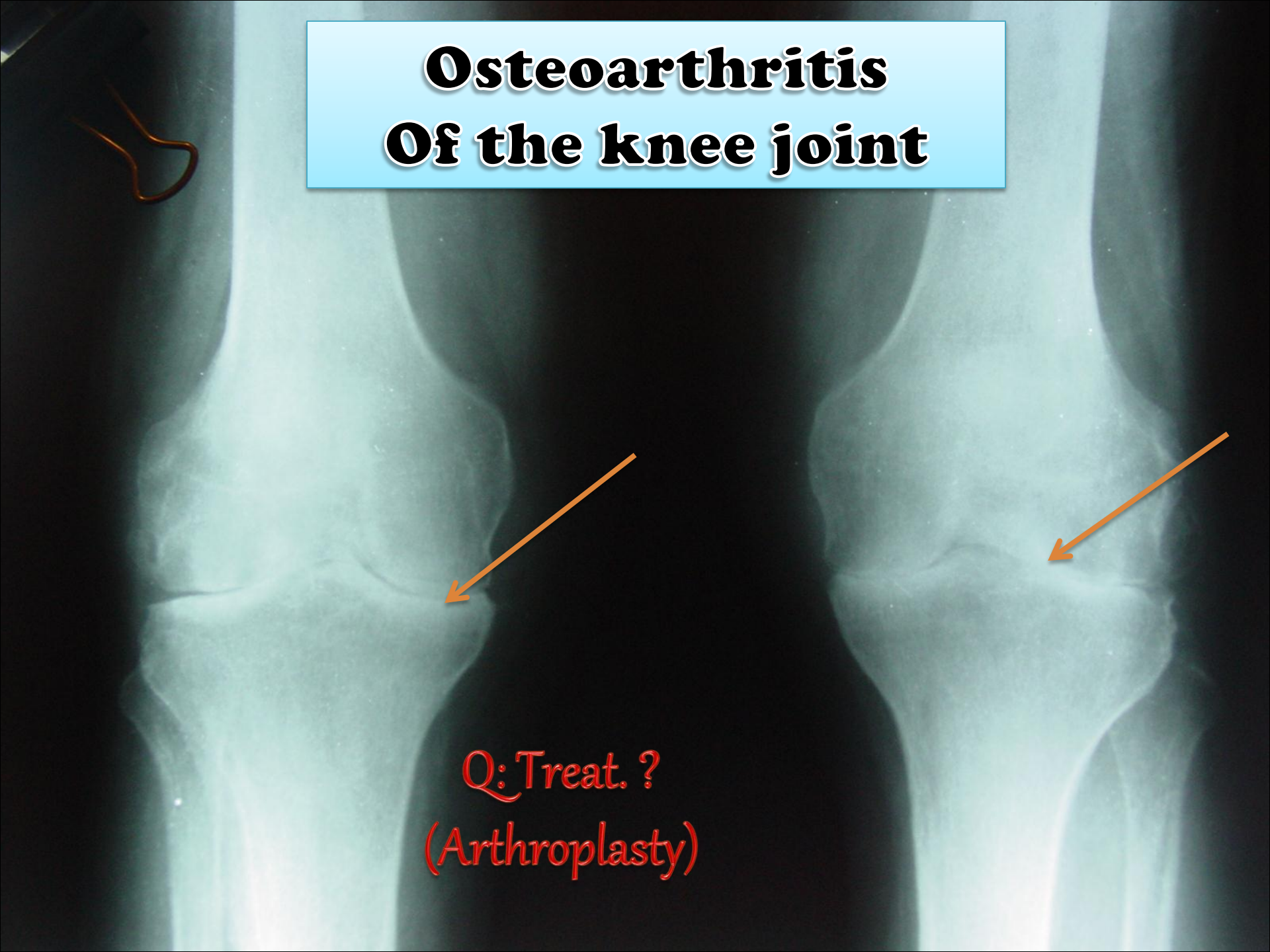
Osteoarthritis
Of the knee joint



Q: X-ray shows ?

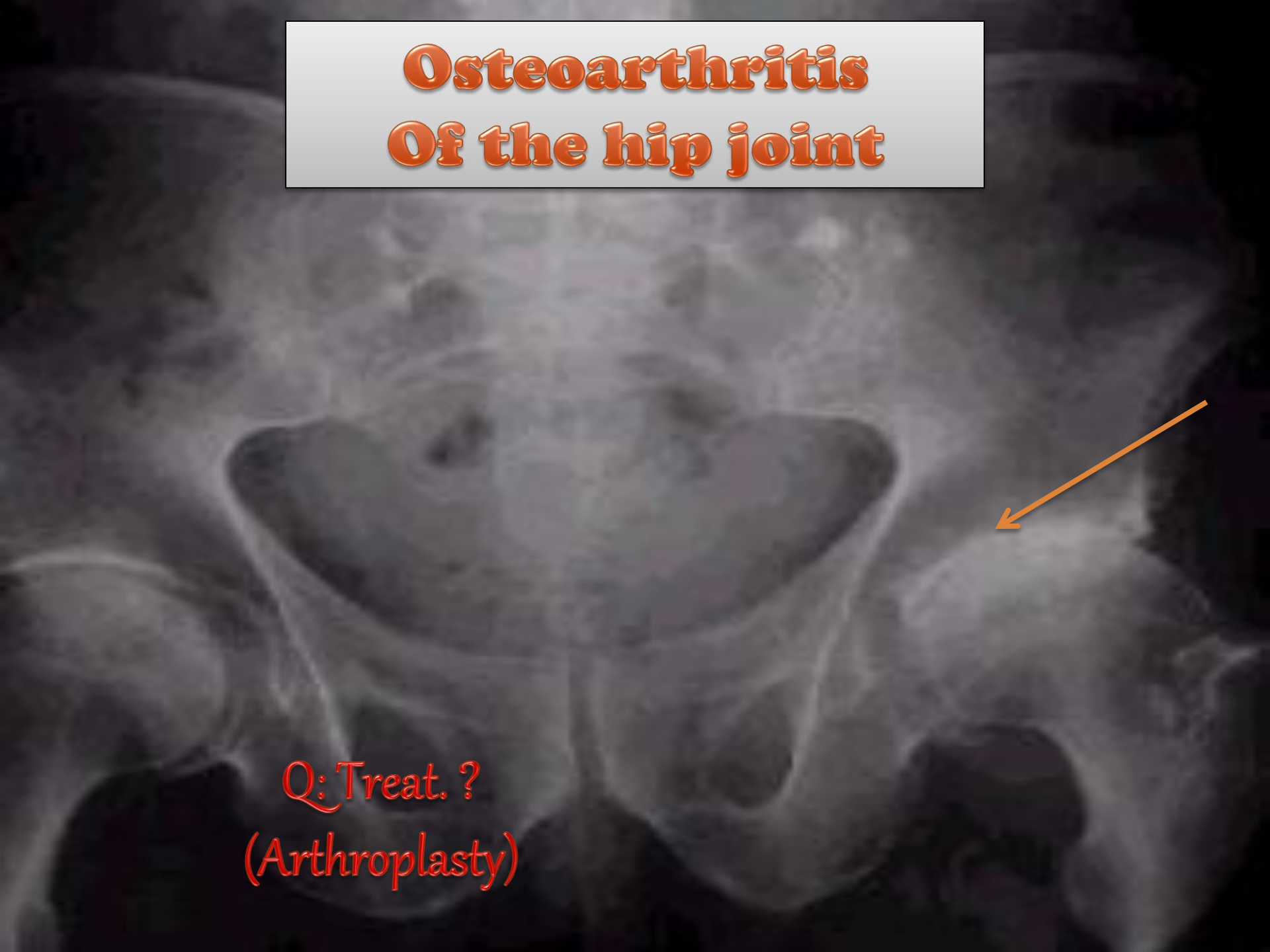
(narrow joint space, irregular articular surface, subchondral sclerosis, bone cysts & osteophytes)

Osteoarthritis
Of the knee joint



Q: Treat. ?
(Arthroplasty)

Osteoarthritis
Of the hip joint



Q: Treat. ?
(Arthroplasty)

Osteoarthritis
Of the hip joint

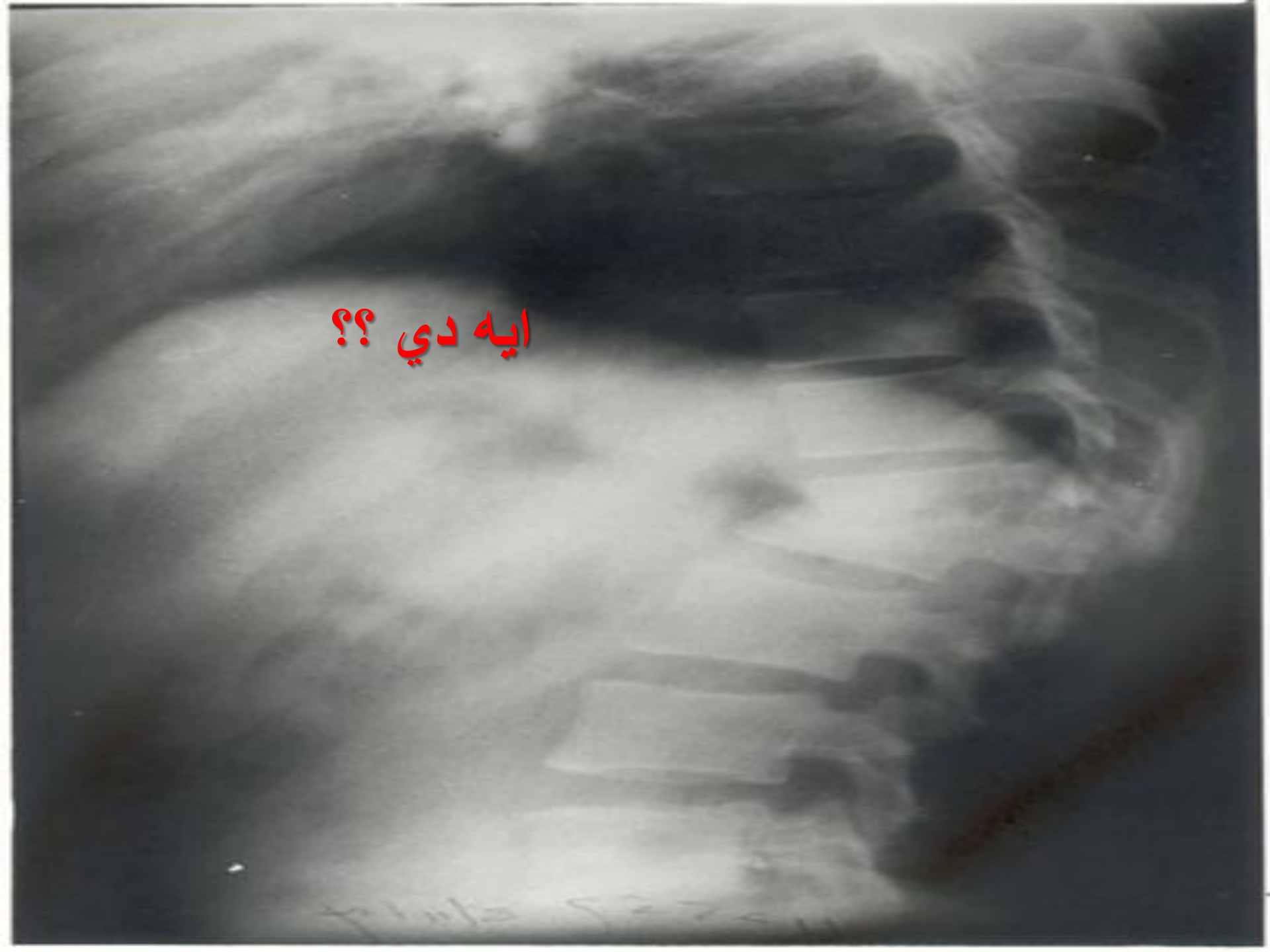
el osteophytes bayna awy ahe



Q: Treat. ?
(Arthroplasty)



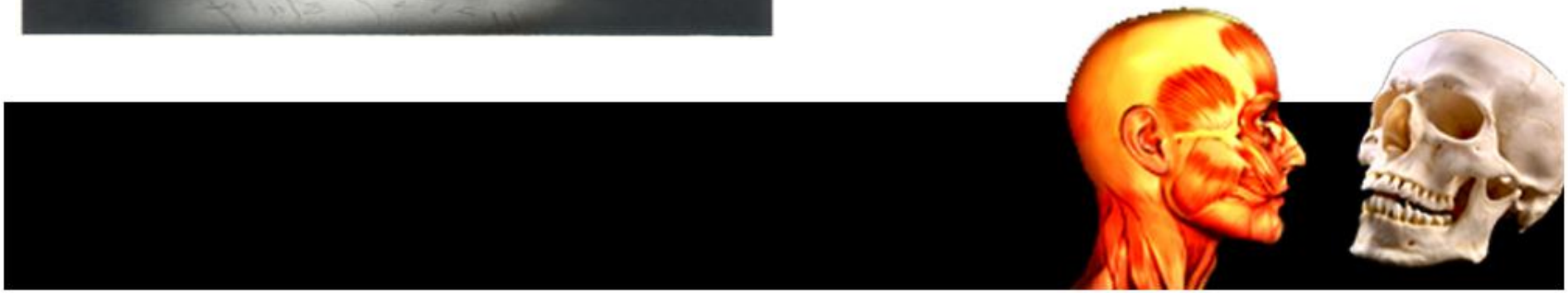
Osteoarthritis
Of the hip joint


ايه دي ؟؟



الفقرات دي حاسس انها مايلة لأدام شوية

kyphosis





الفقرات دي حاسس انها مايلة لأدام شوية

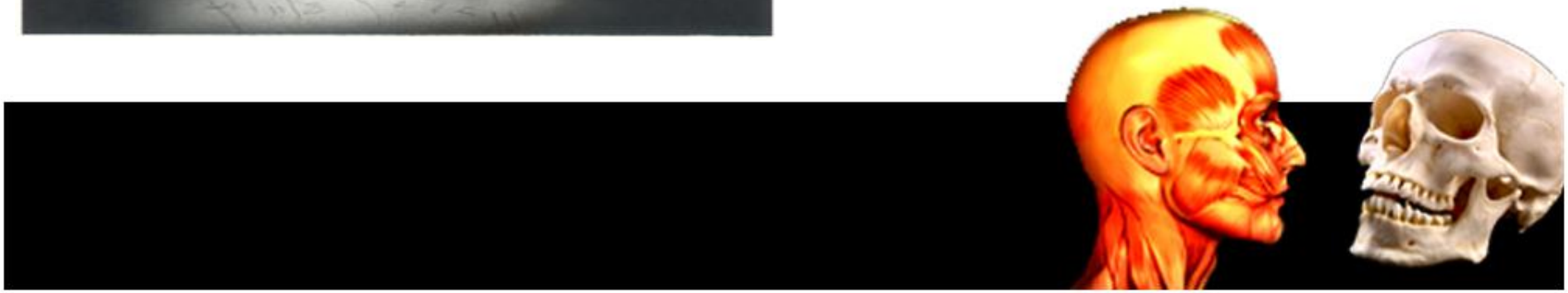
kyphosis

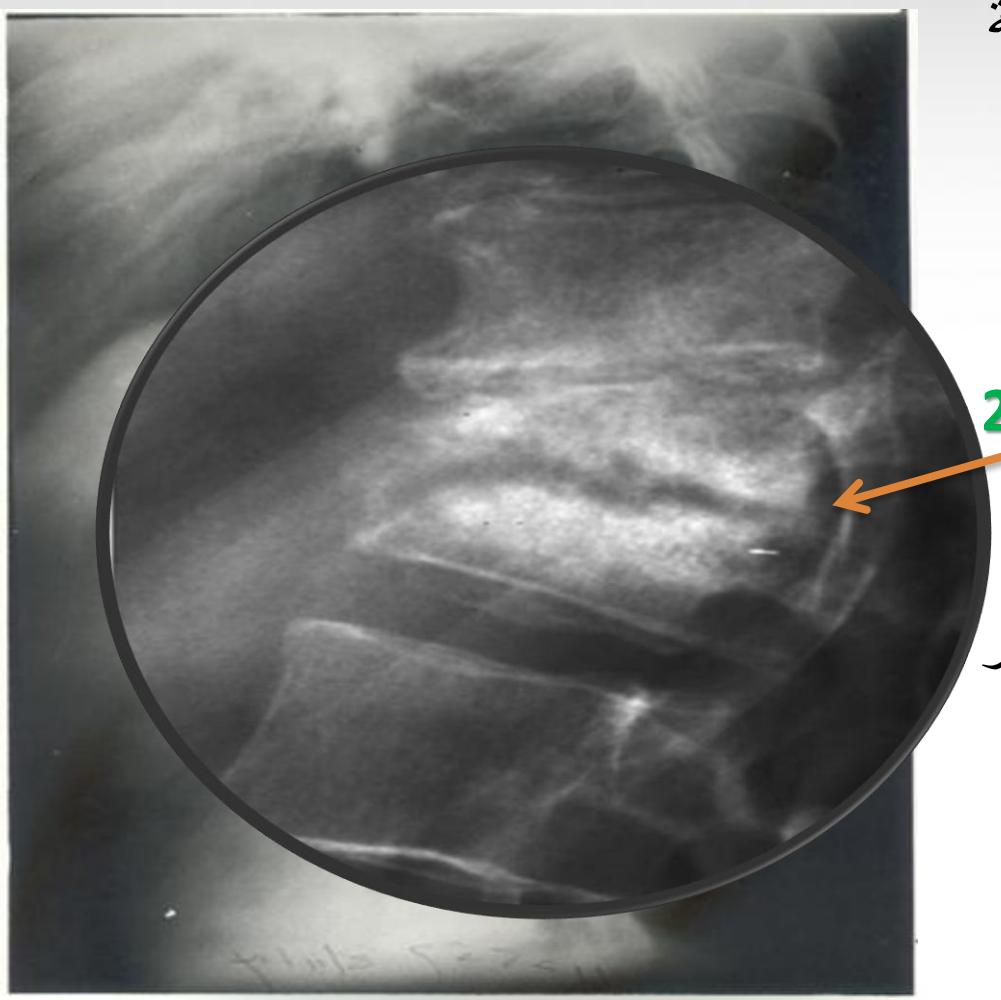
و كمان أخدنا بالنا انه في فقرتين مفعوصين على بعض

2 vertebrae collapsed and their intervening disc

اول ما الاقي العلامتين دول يبقى من غير ما افكر

T.B of spine aw Pott's disease





الفقرات دي حاسس انها مايلة لأدام شوية

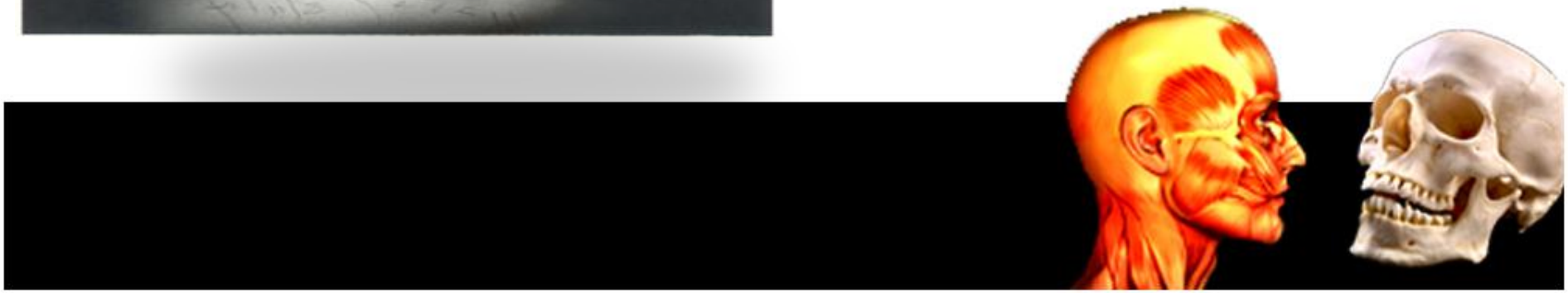
kyphosis

و كمان أخدنا بالنا انه في فقرتين مفعوصين على بعض

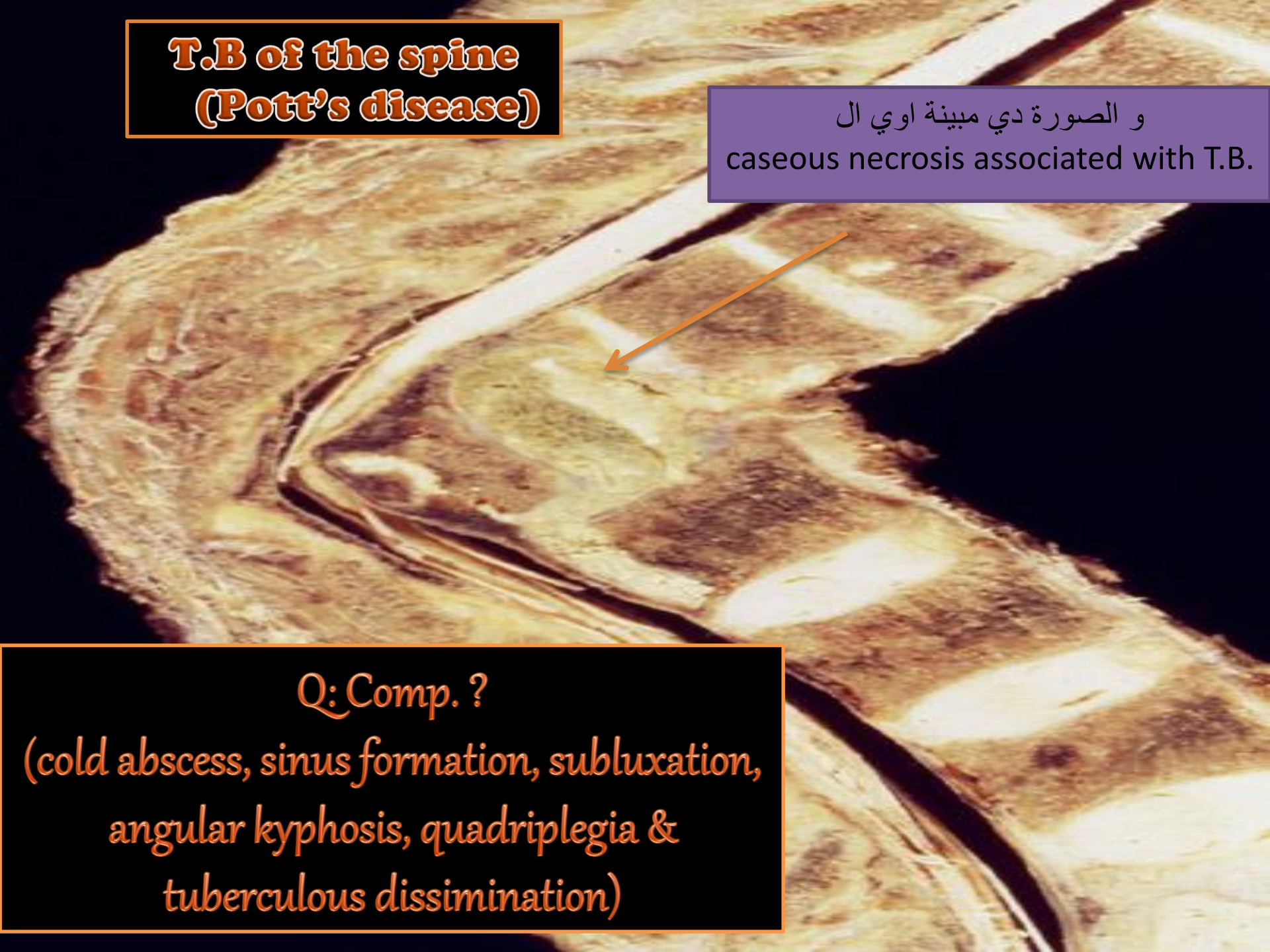
2 vertebrae collapsed and their intervening disc

اول ما الاقي العلامتين دول يبقى من غير ما افكر

T.B of spine aw Pott's disease



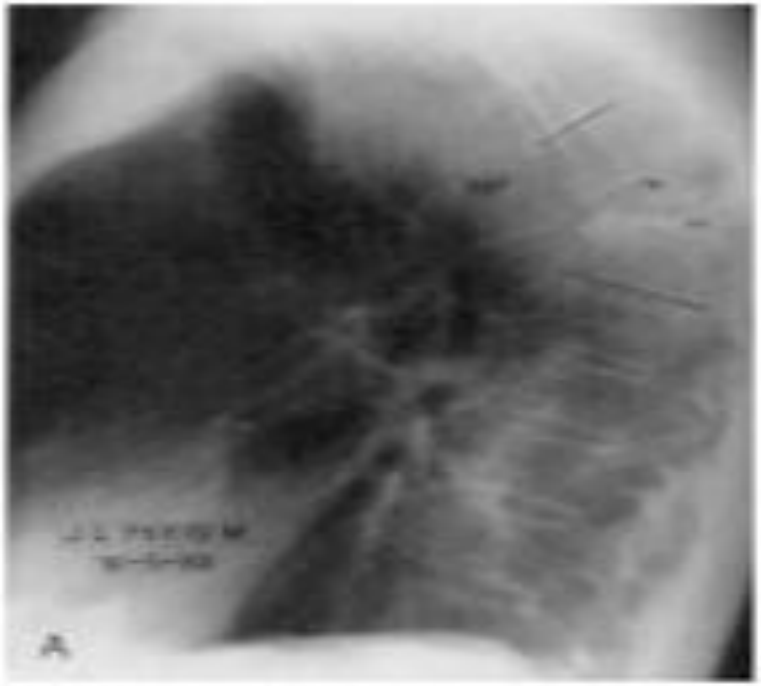
T.B of the spine (Pott's disease)



و الصورة دي مبينة اوي ال
caseous necrosis associated with T.B.

Q: Comp. ?
(cold abscess, sinus formation, subluxation, angular kyphosis, quadriplegia & tuberculous dissimination)

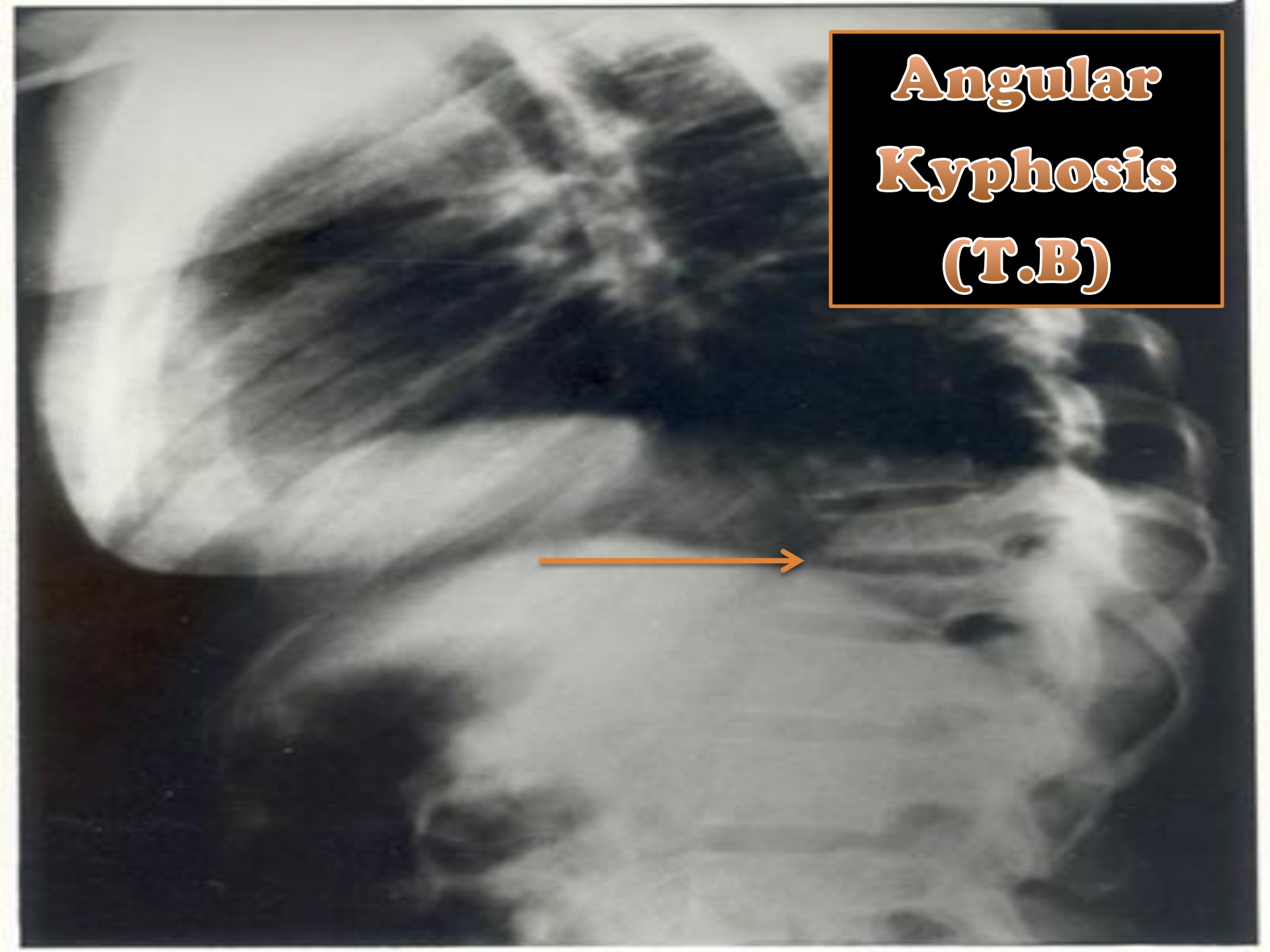
T.B of the spine with kyphosis (Pott's disease)



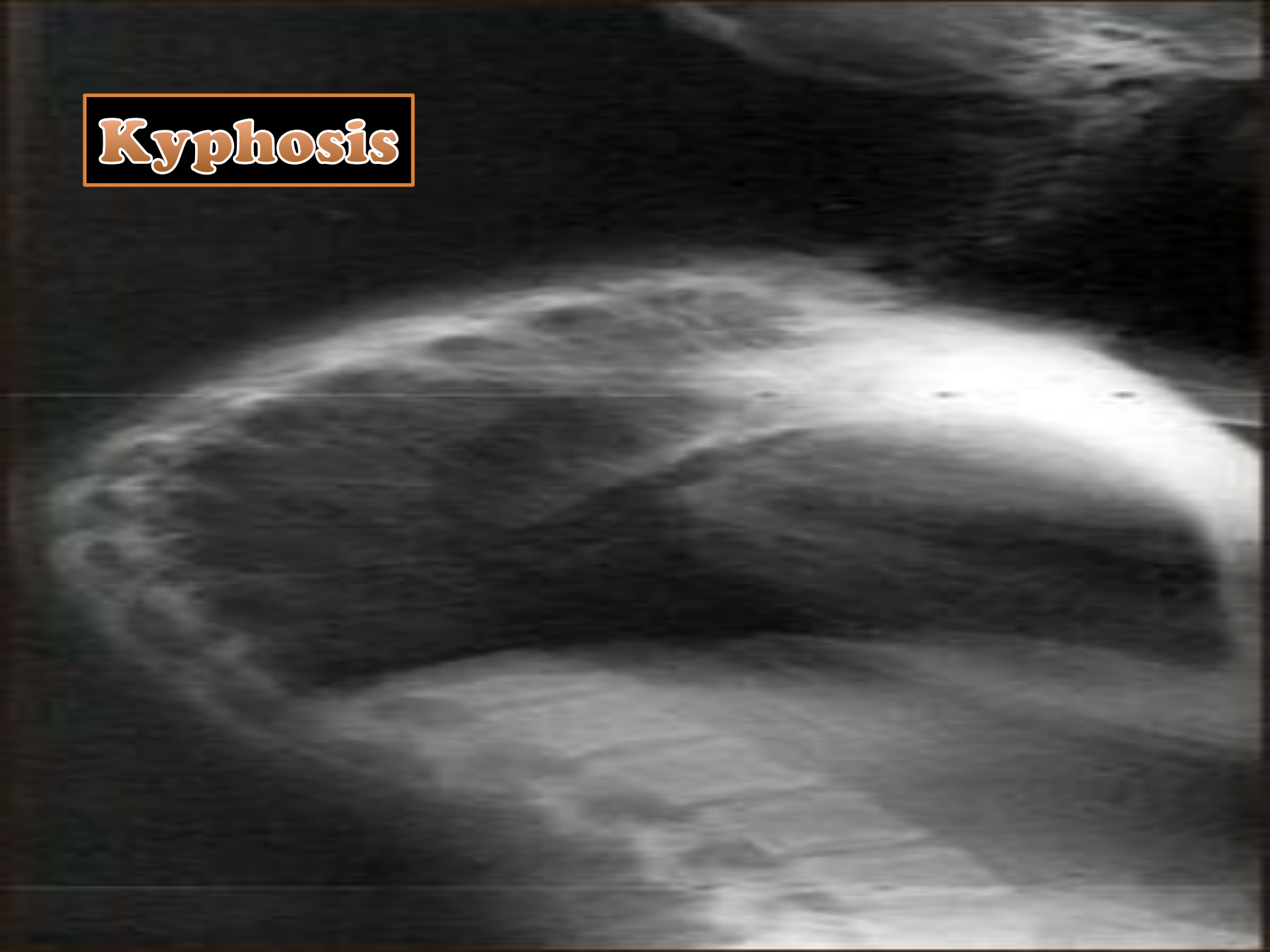
N.B. 5ally balko e7na keda ba2a 3andena Pott's disease w Pott's fracture (Malleolar fracture)






Angular
Kyphosis
(T.B)


Kyphosis
A


Kyphosis



Scoliosis (lateral curvature of the spine)

Q: Treat. ?

(Surgical correction, fusion & IF)

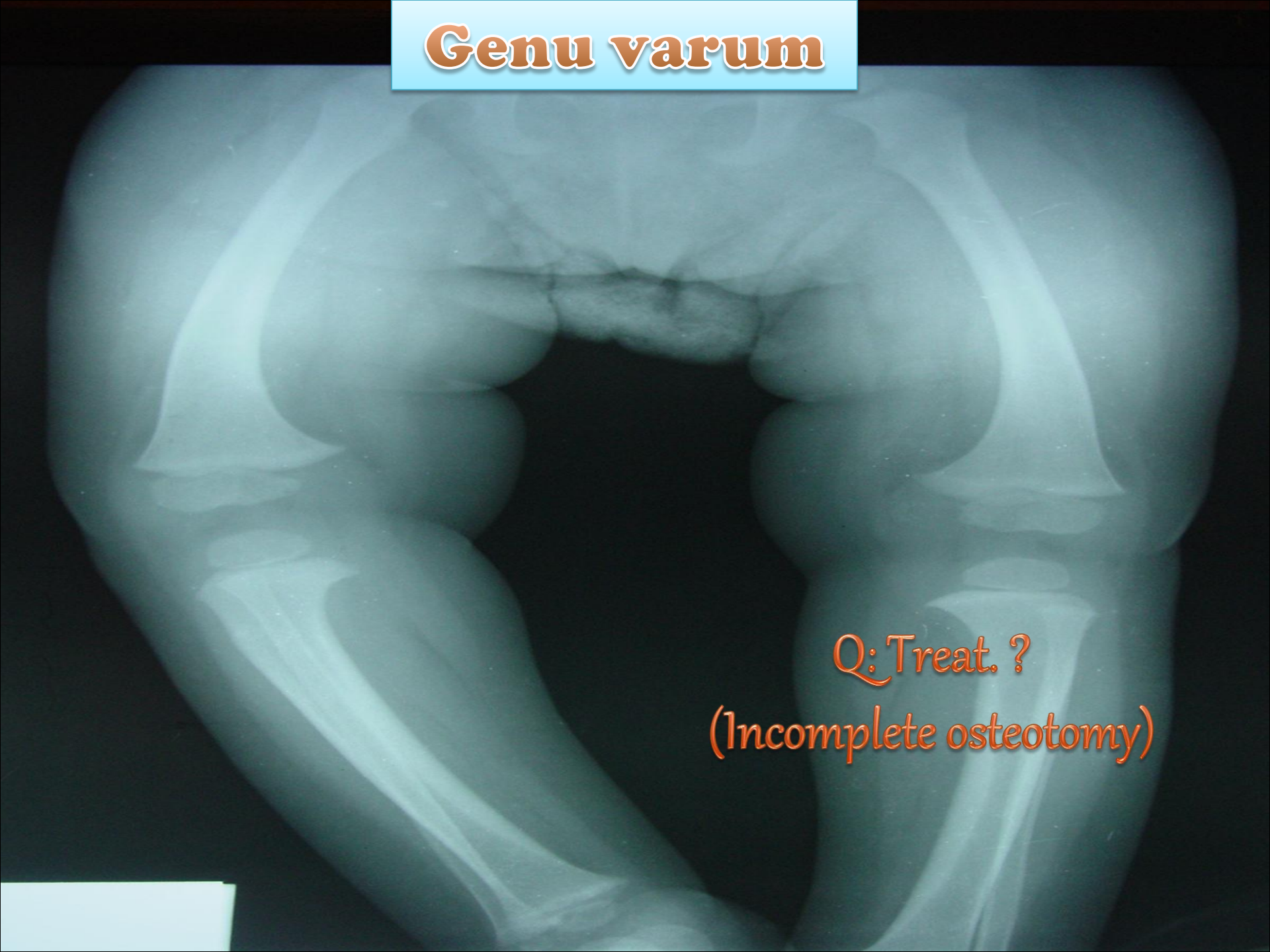


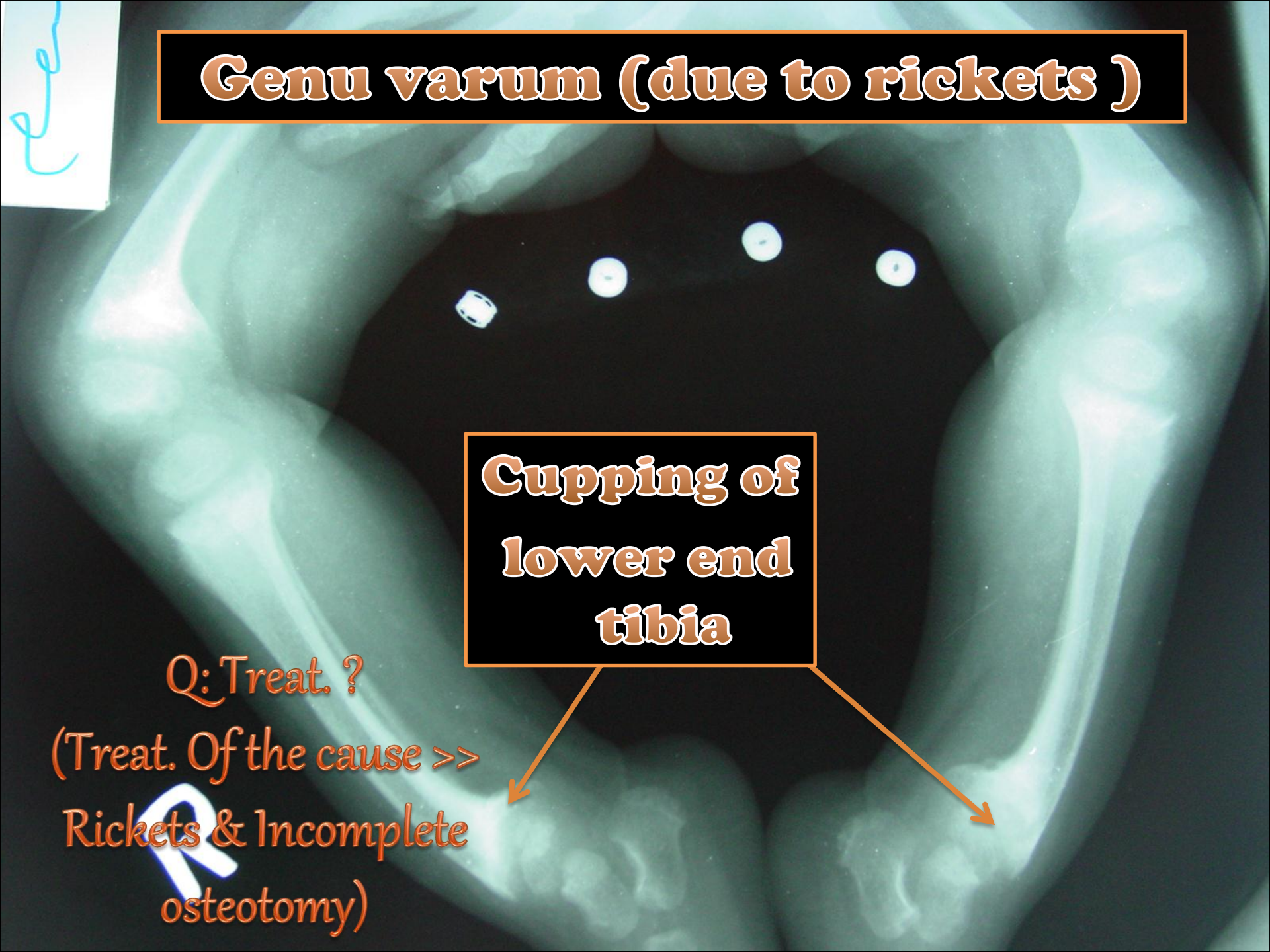
Thoracic scoliosis

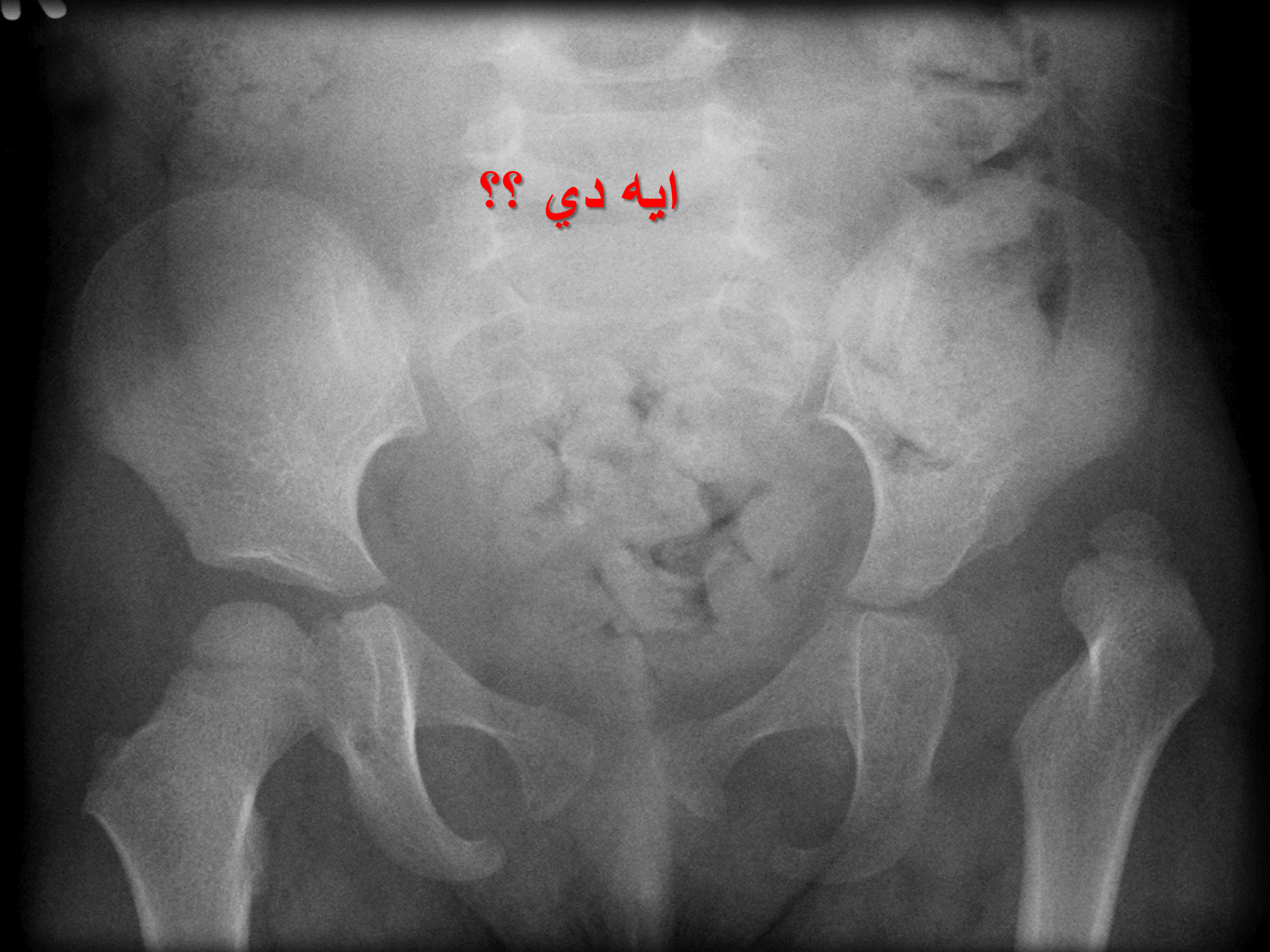


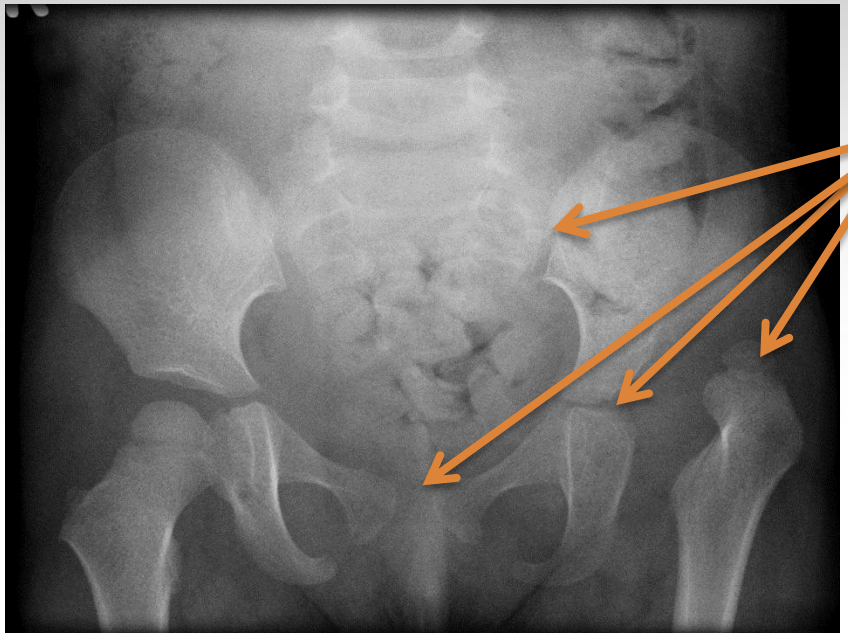
Lumber scoliosis

Genu varum



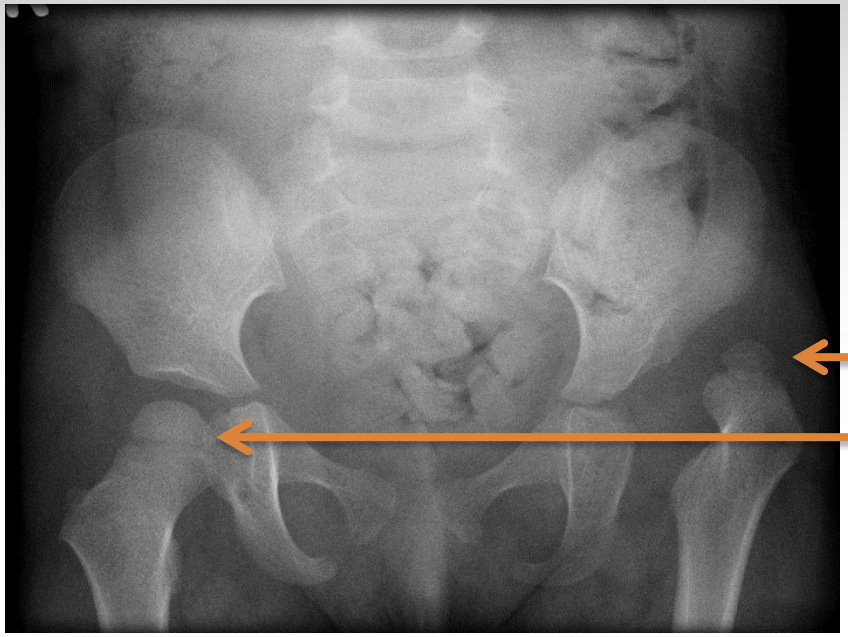

Genu varum (due to rickets)
Cupping of lower end tibia
Q: Treat. ?
(Treat. Of the cause >>
Rickets & Incomplete
osteotomy)


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مبدئيا واخدين بالنا انه حوض بتاع طفل
el epiphysis fe kol el joints aho

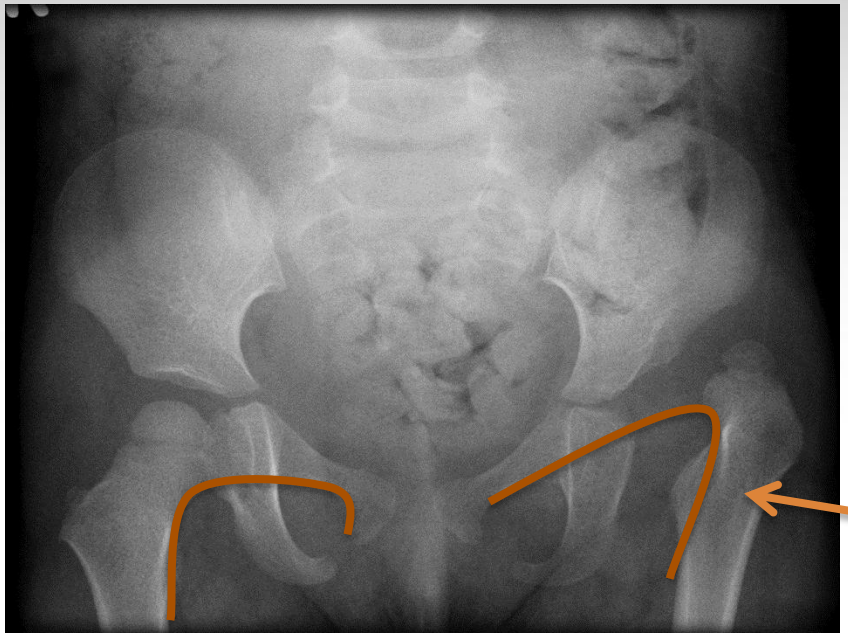




مبدئيا واخدين بالنا انه حوض بتاع طفل
el epiphysis fe kol el joints aho

left head femur is smaller than right one





مبدئيا واخدين بالنا انه حوض بتاع طفل
el epiphysis fe kol el joints aho

left head femur is smaller than right one

disturbed shenton’s line

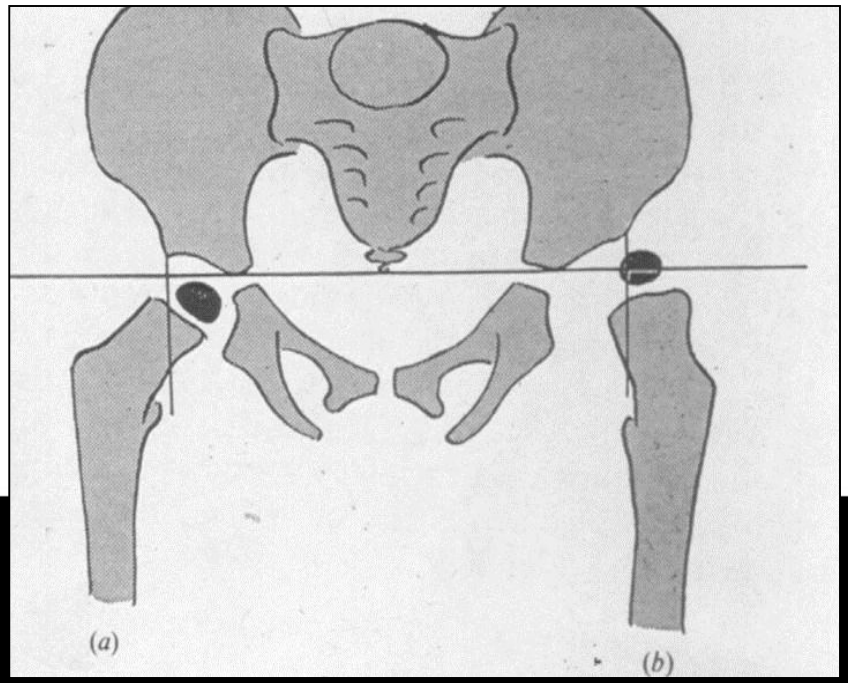




مبدئيا واخدين بالنا انه حوض بتاع طفل
el epiphysis fe kol el joints aho

left head femur is smaller than right one

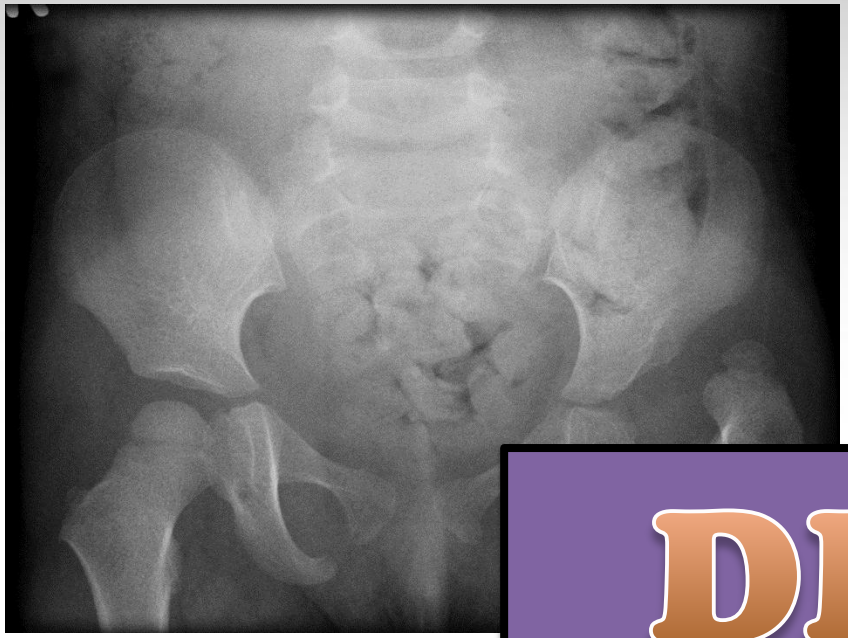
disturbed shenton’s line



increased neck-shaft angle

بالتالي لما نيجي نرسم خطوط وهمية زي الصورة كدة هنلاقي الراس في ال
upper outer quadrant





DDH

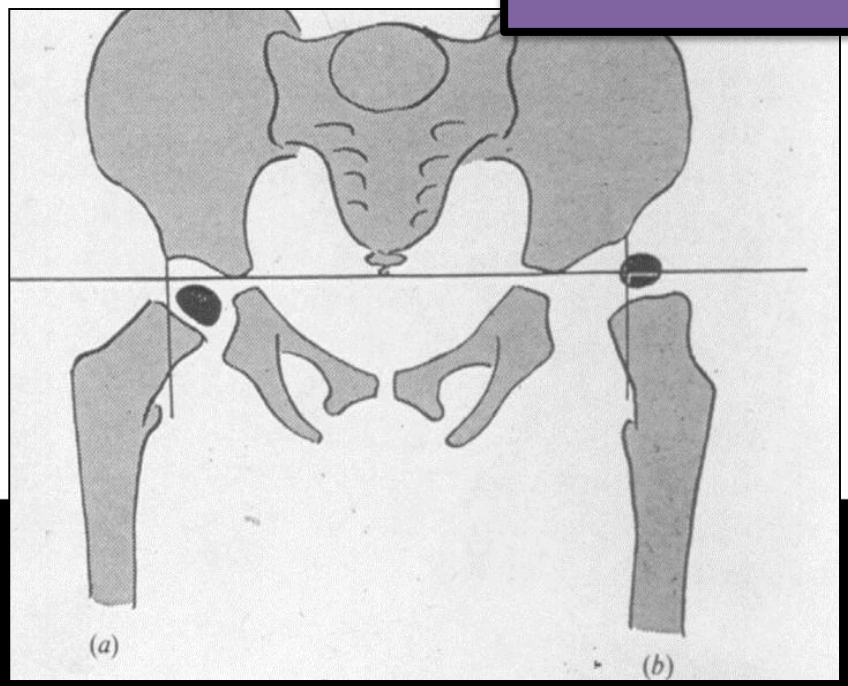
مبدئيا واخدين بالنا انه حوض بتاع طفل
el epiphysis fe kol el joints aho

left head femur is smaller than right one

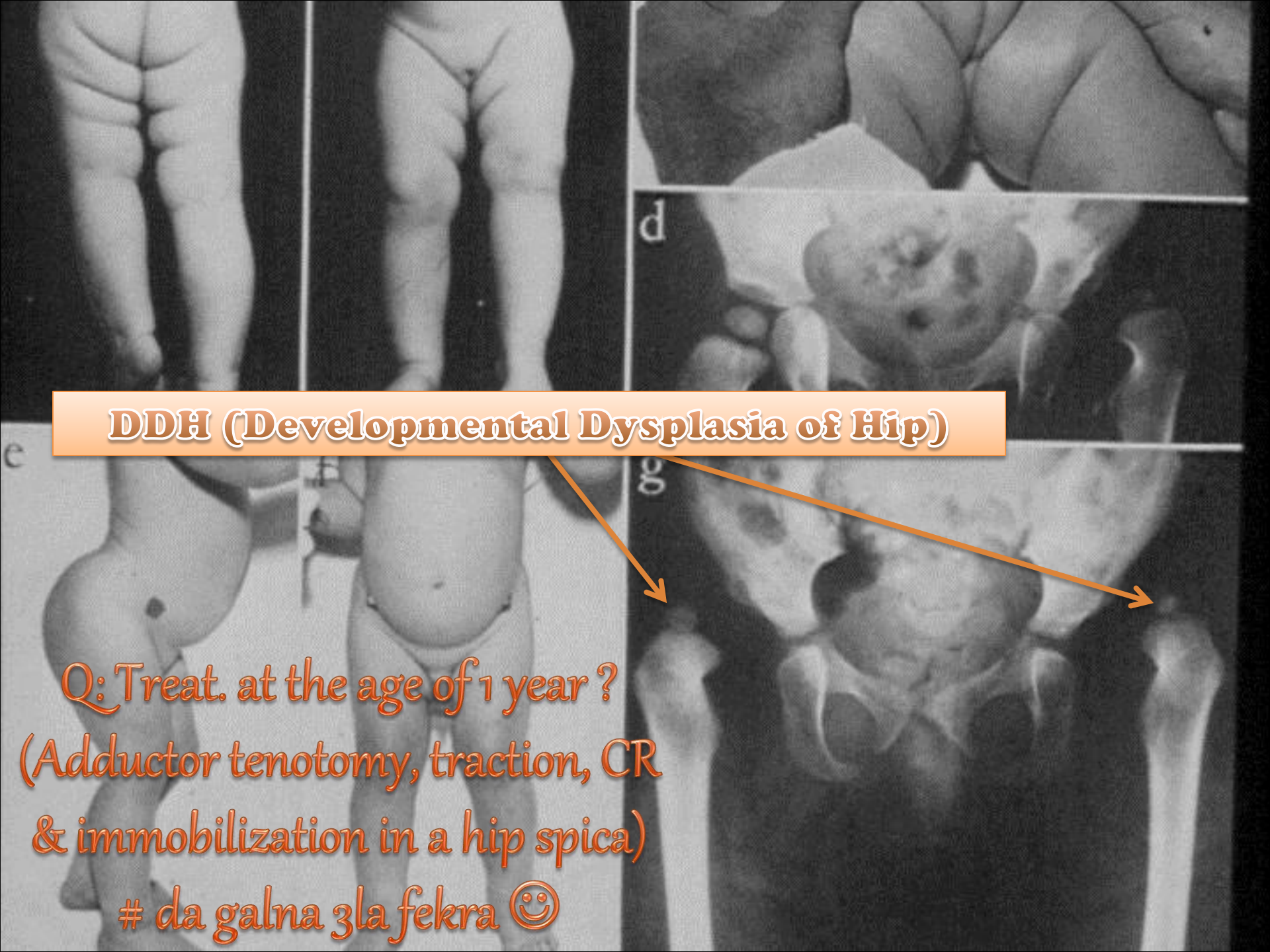
shenton’s line

increased neck-shaft angle

بالتالي لما نيجي نرسم خطوط وهمية زي الصورة كدة هنلاقي الراس في ال
upper outer quadrant

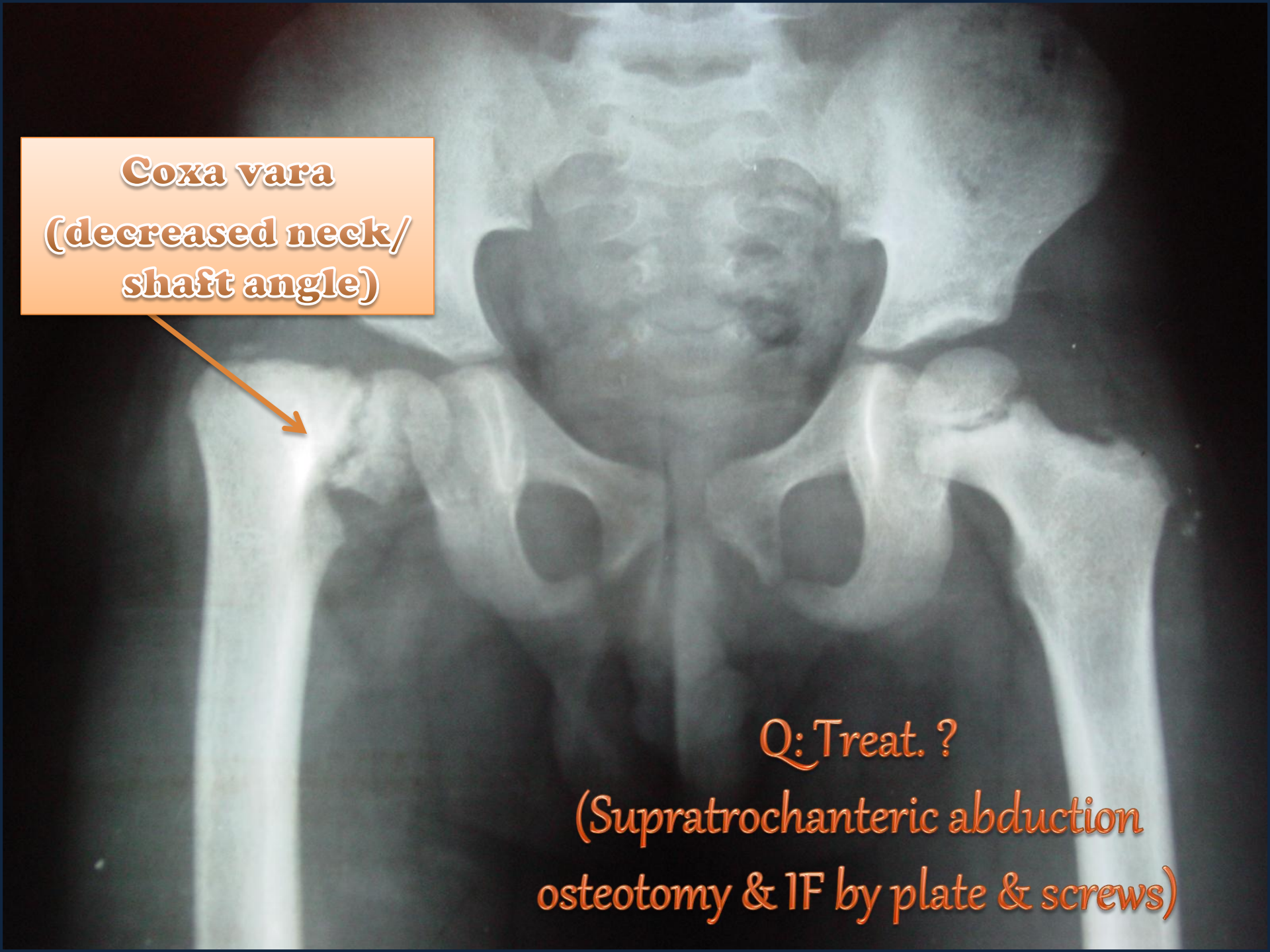


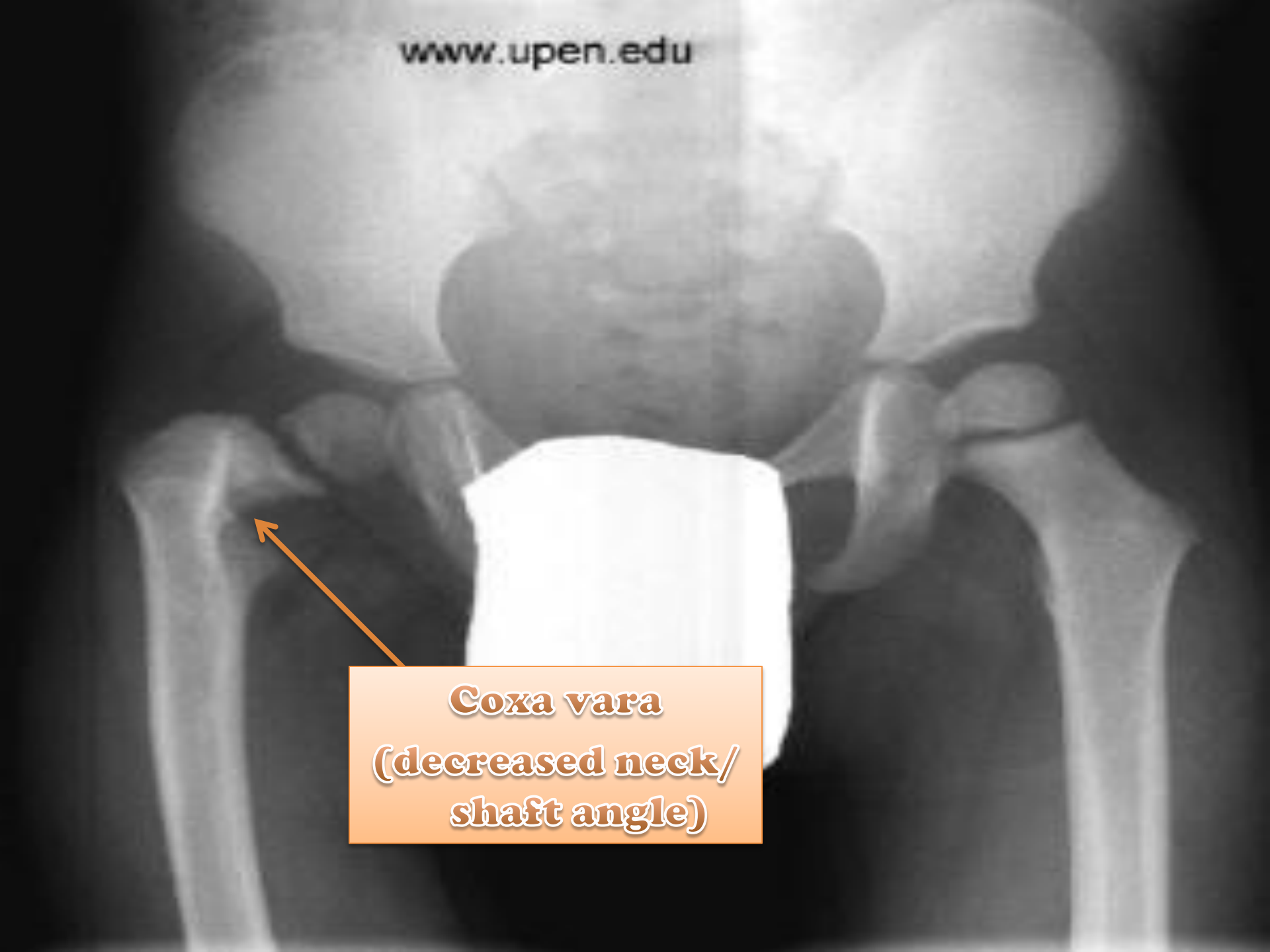


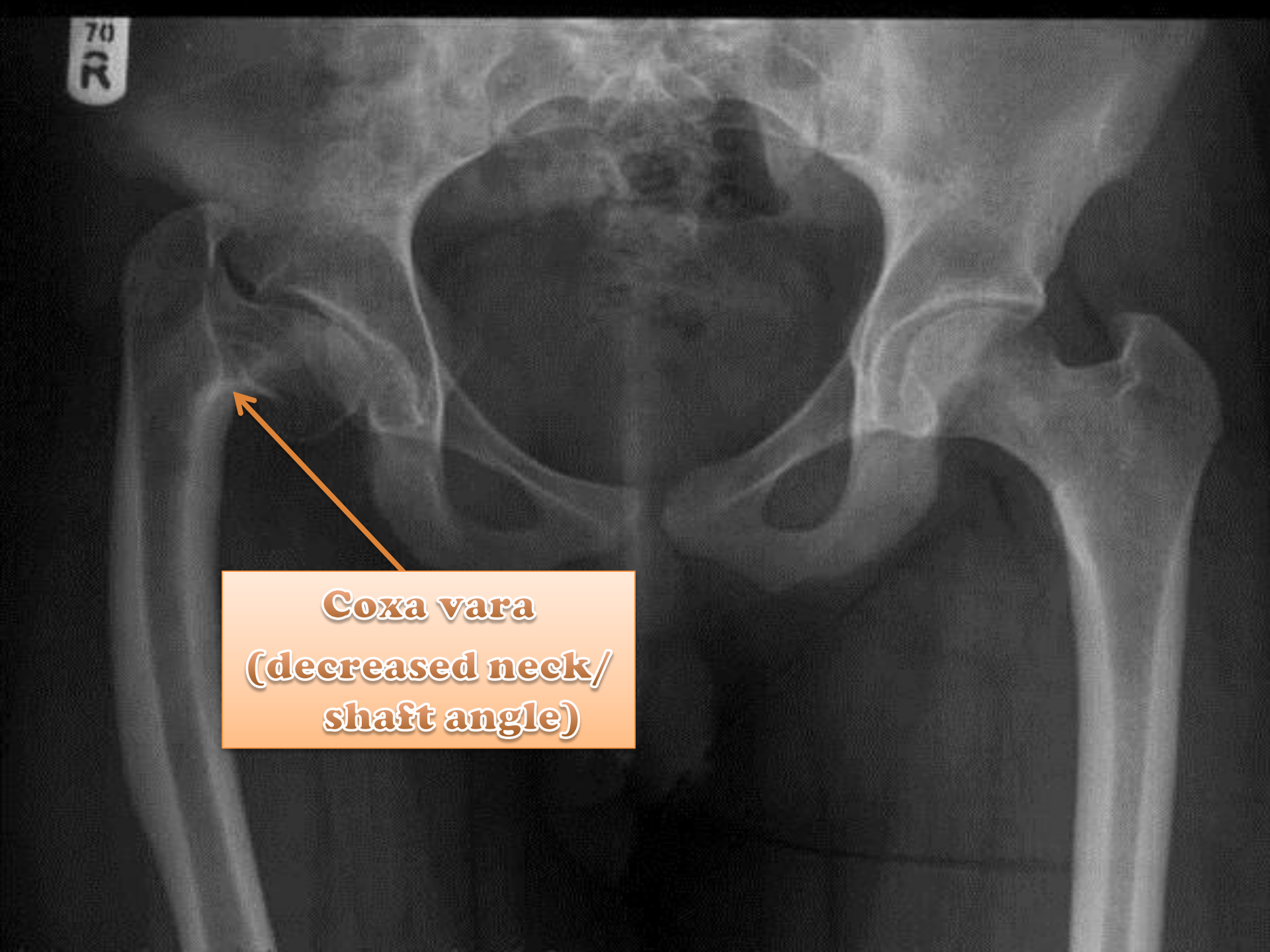


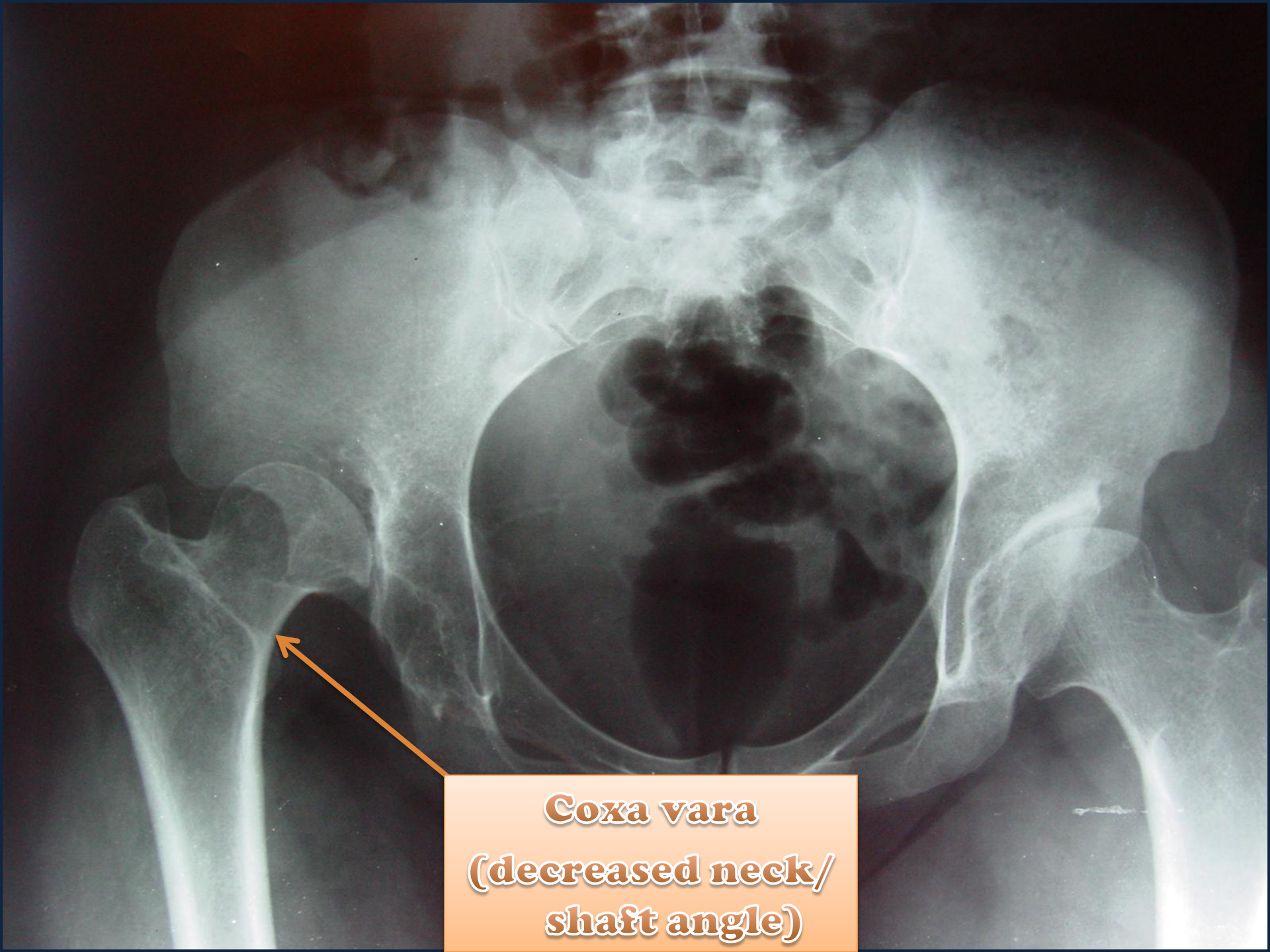
DDH (Developmental Dysplasia of Hip)

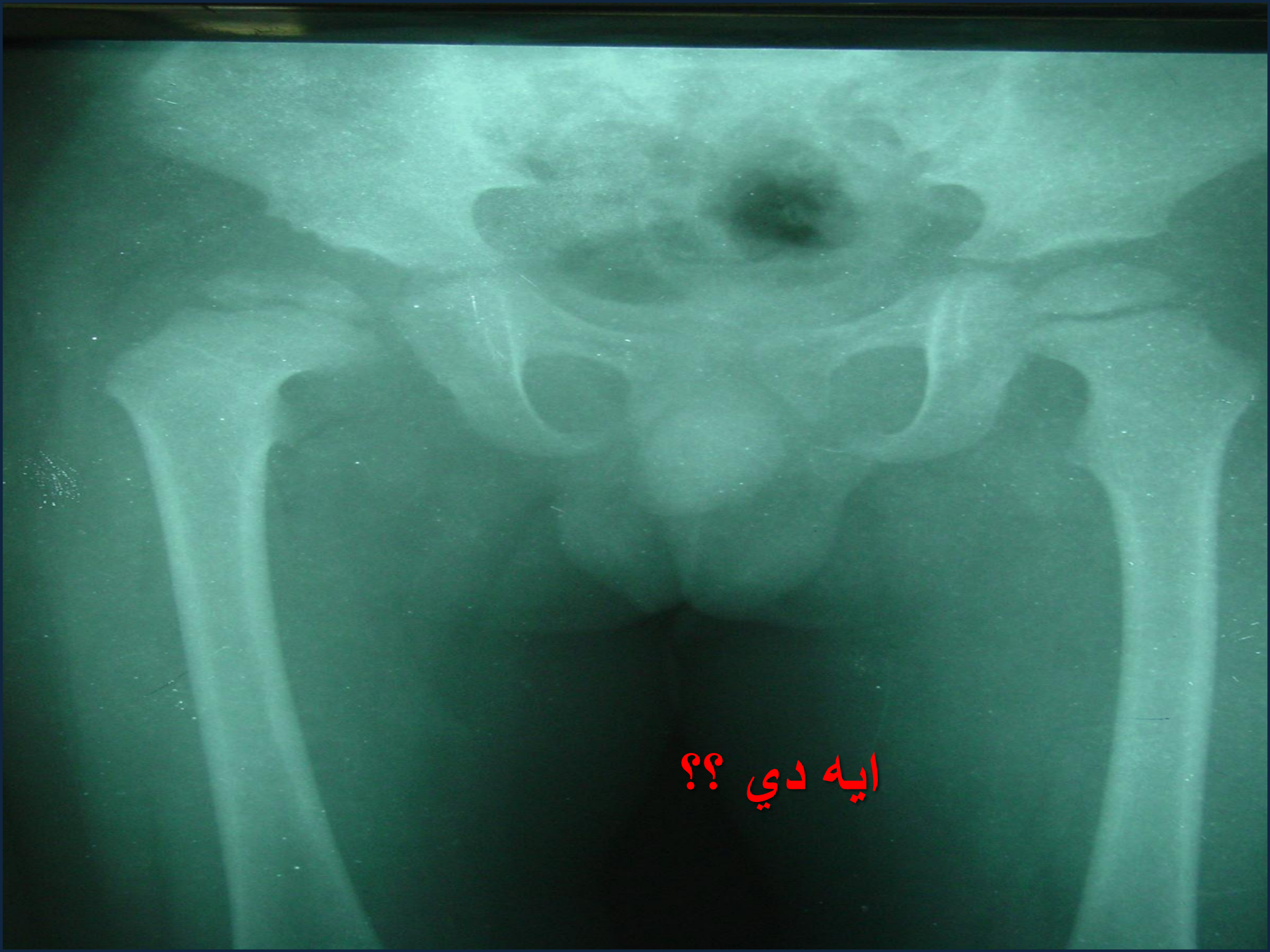
Q: Treat. at the age of 1 year ?
(Adductor tenotomy, traction, CR & immobilization in a hip spica)
da galna 3la fekra ☺

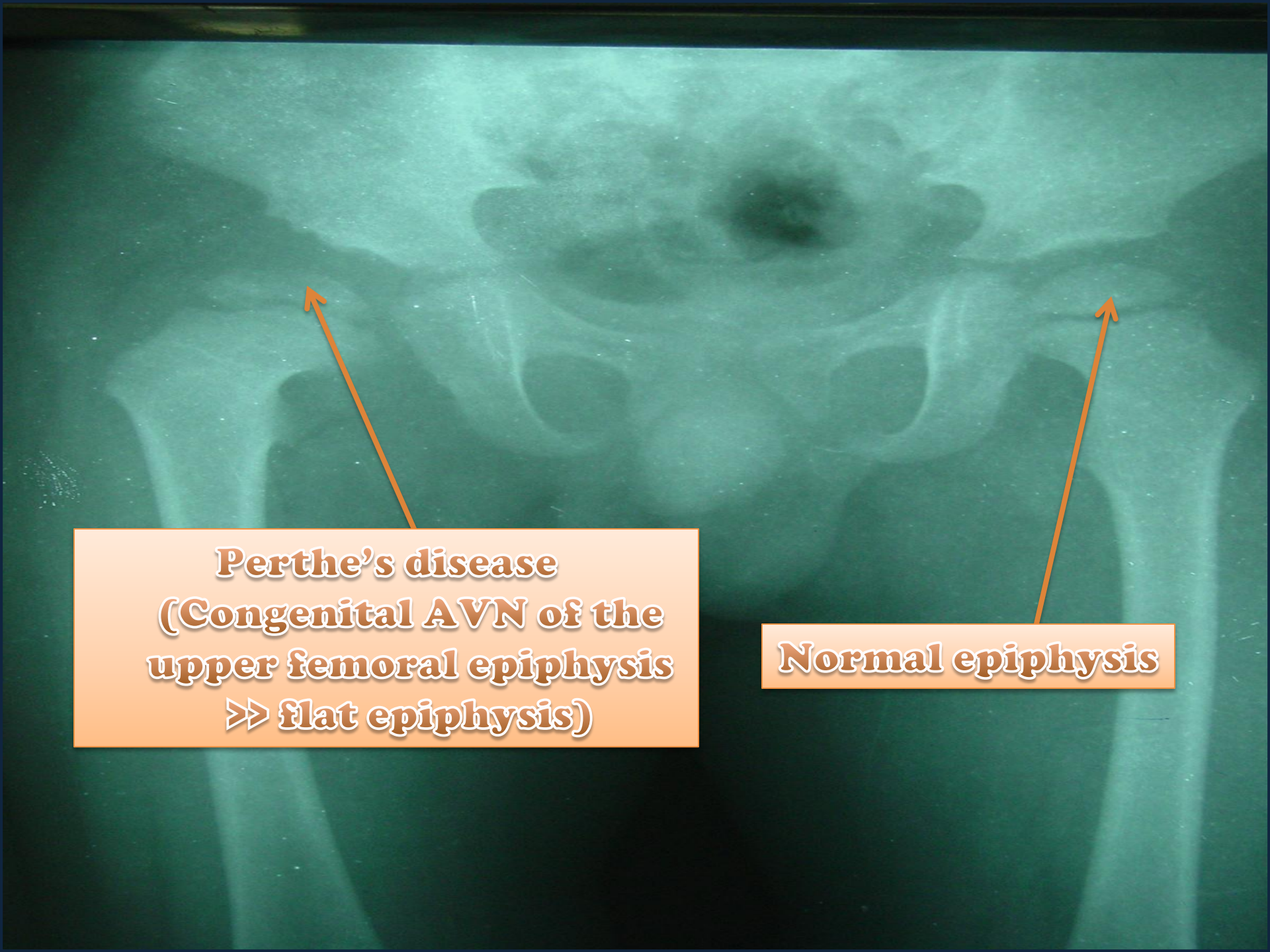

Coxa vara
(decreased neck/
shaft angle)
Q: Treat. ?
(Supratrochanteric abduction
osteotomy & IF by plate & screws)


www.upen.edu
Coxa vara
(decreased neck/
shaft angle)

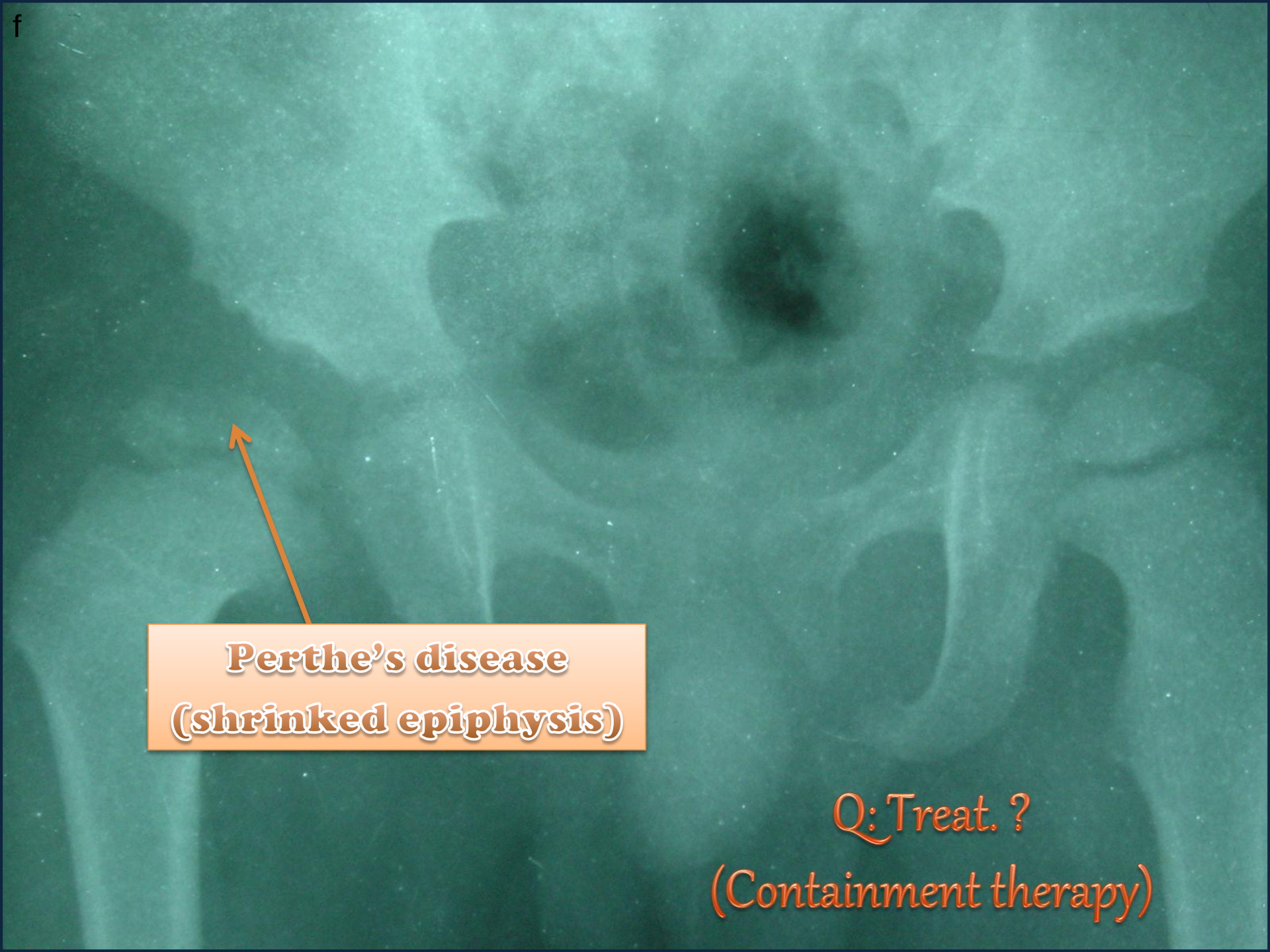

70
R
Coxa vara
(decreased neck/
shaft angle)

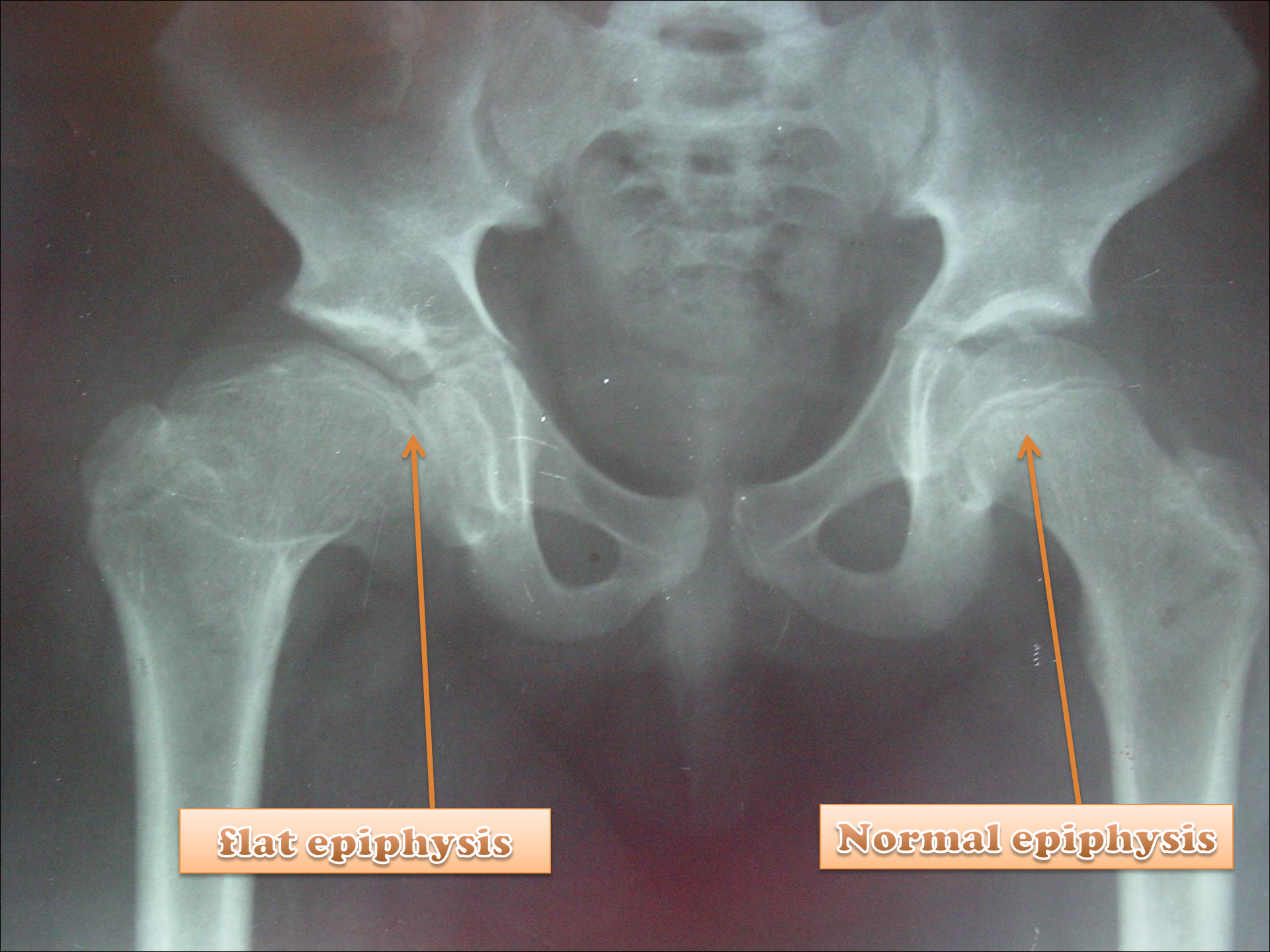

Coxa vara
(decreased neck/
shaft angle)


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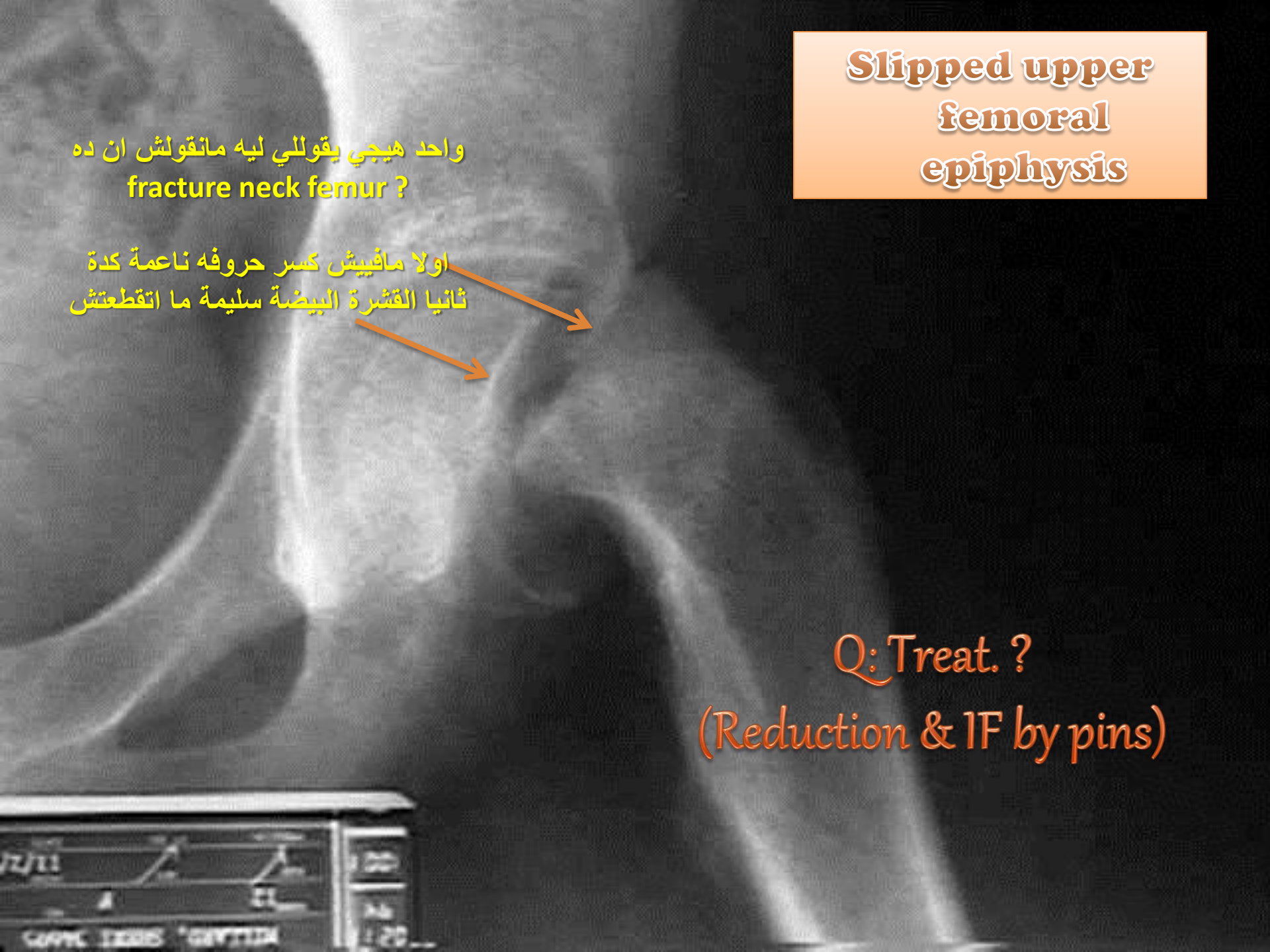

Perthe's disease
(Congenital AVN of the upper femoral epiphysis >> flat epiphysis)
Normal epiphysis

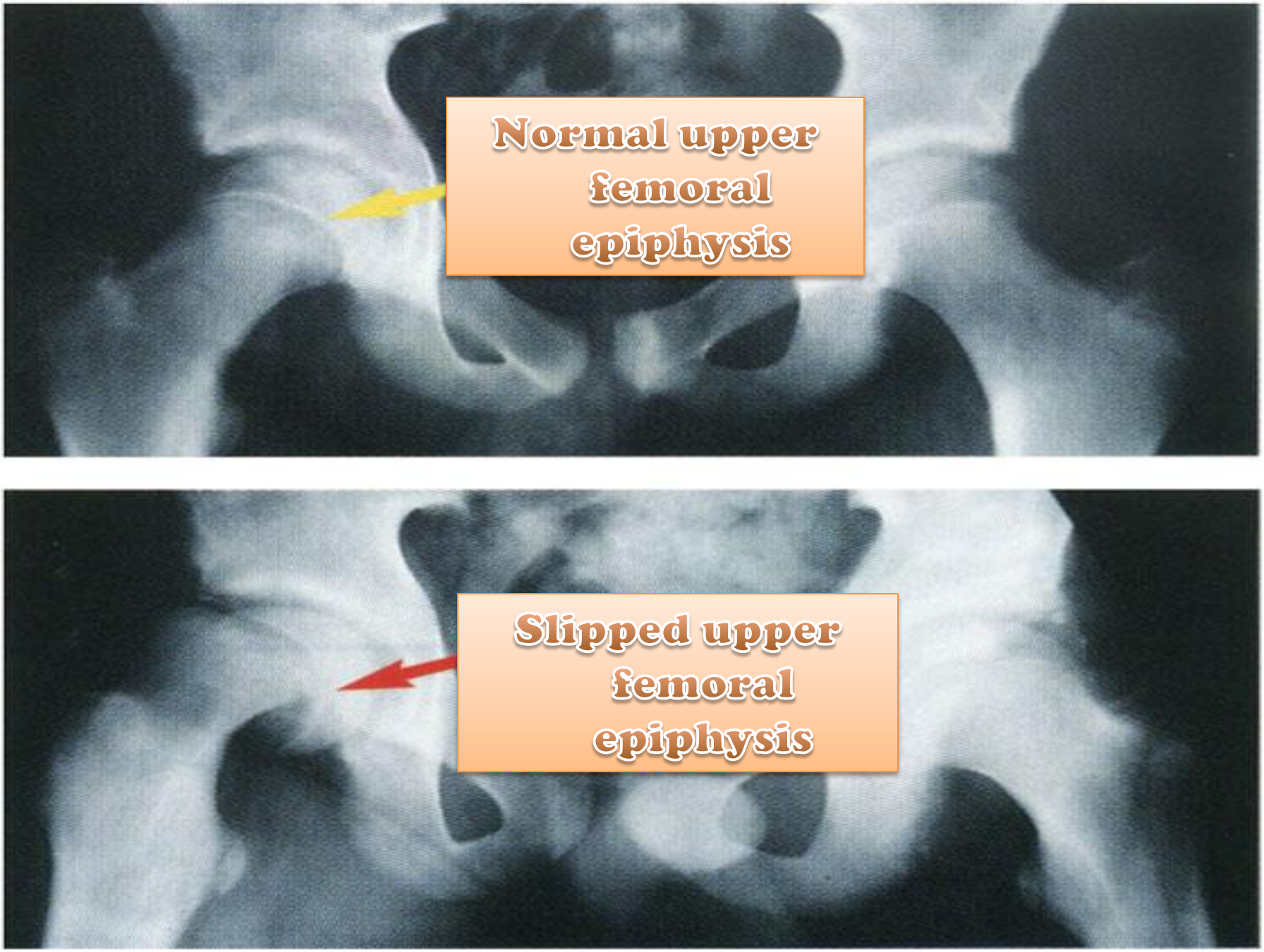
f

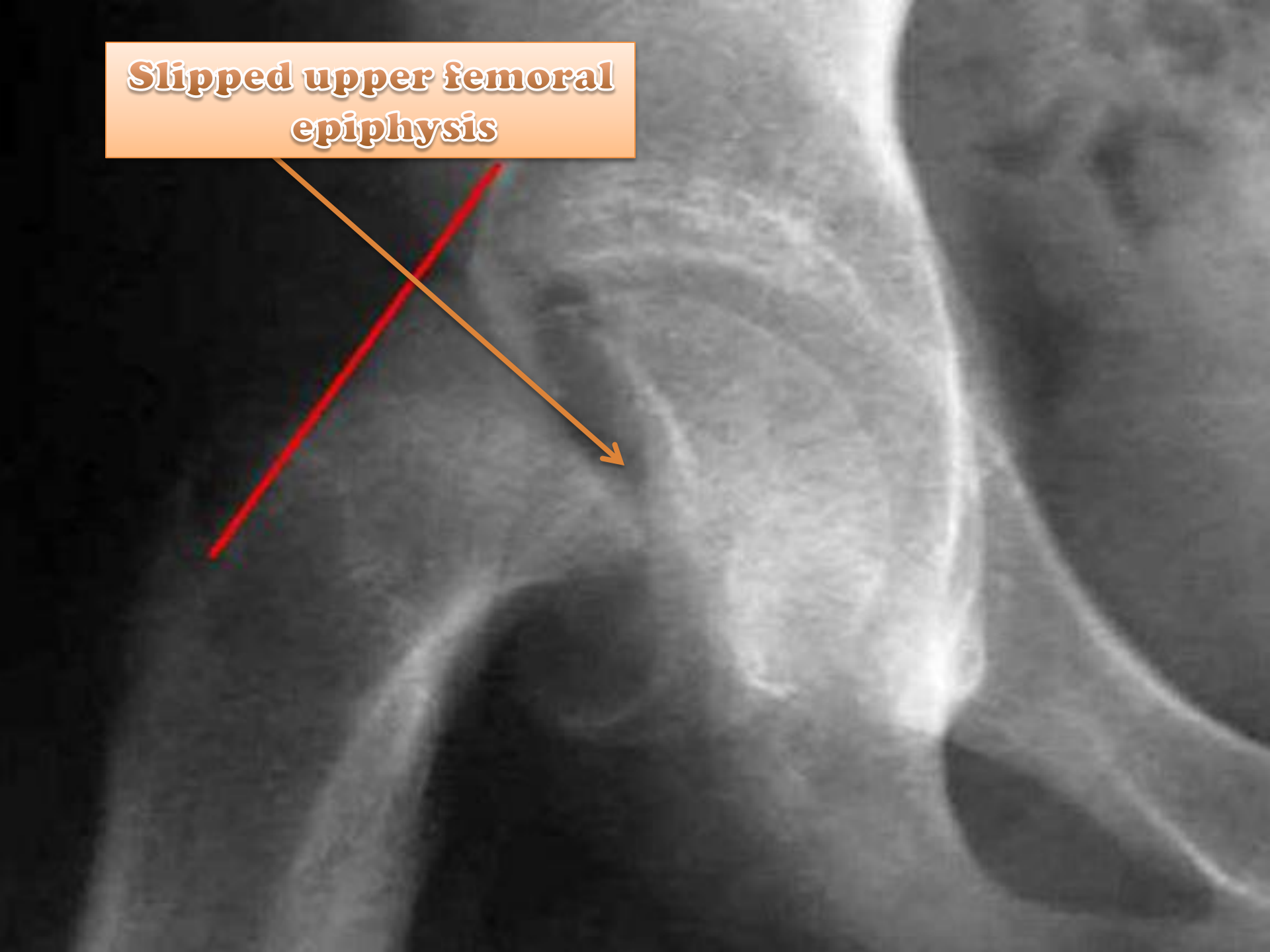

Perthe's disease
(shrinked epiphysis)
Q: Treat. ?
(Containment therapy)


flat epiphysis
Normal epiphysis


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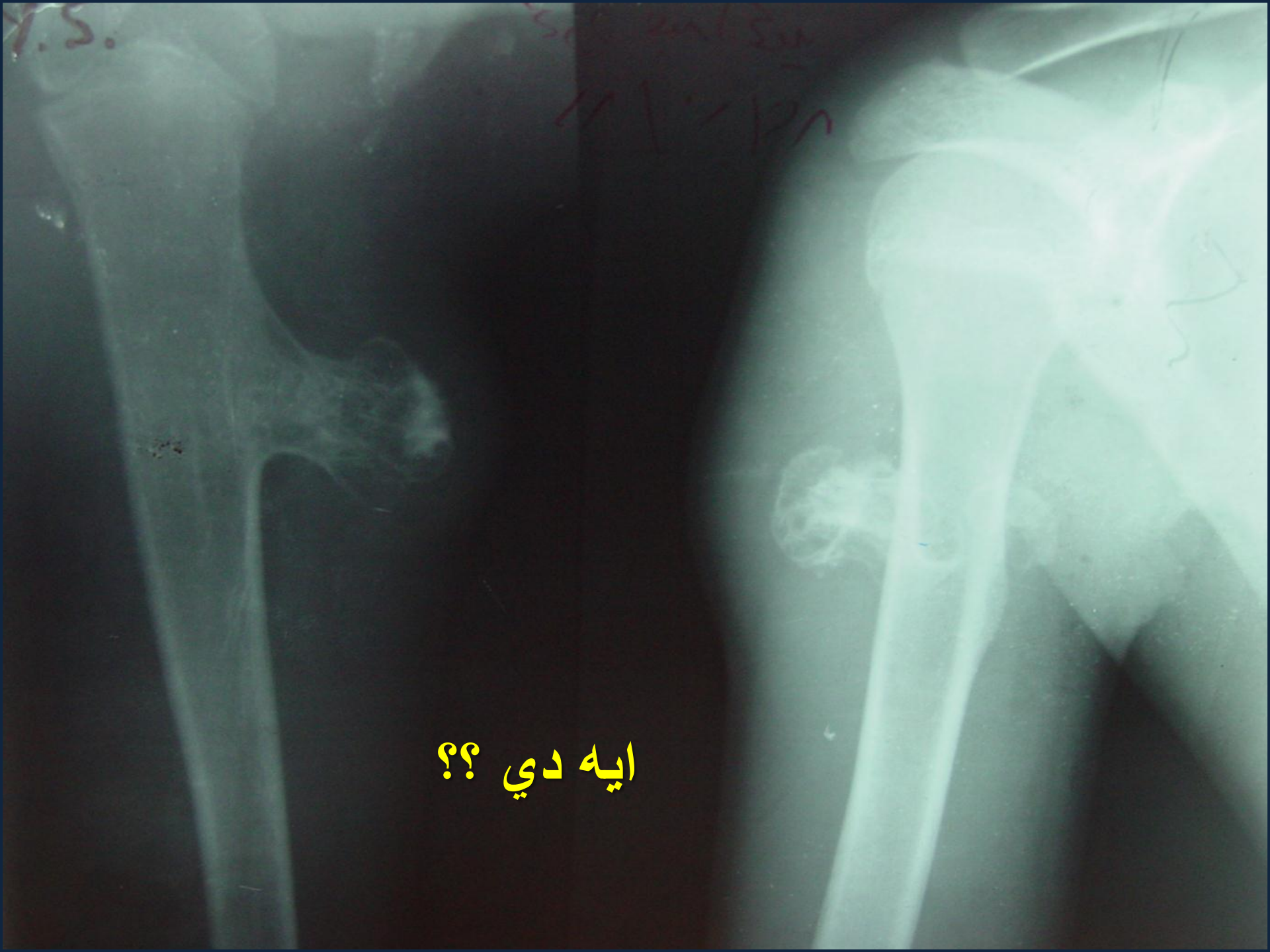

Slipped upper femoral epiphysis
واحد هيجي يقوللي ليه مانقولش ان ده fracture neck femur ؟
اولا مافييش كسر حروفه ناعمة كدة
ثانيا القشرة البيضة سليمة ما اتقطعتش
Q: Treat. ?
(Reduction & IF by pins)


Normal upper femoral epiphysis
Slipped upper femoral epiphysis


Slipped upper femoral epiphysis

Polydactyly (Extra thumb)




ايه دي ؟؟



امممممم ايه اللي طالع من العضمة ده ؟؟

يا إلهي ... يكونش ...





امممممم ايه اللي طالع من العضمة ده ؟؟

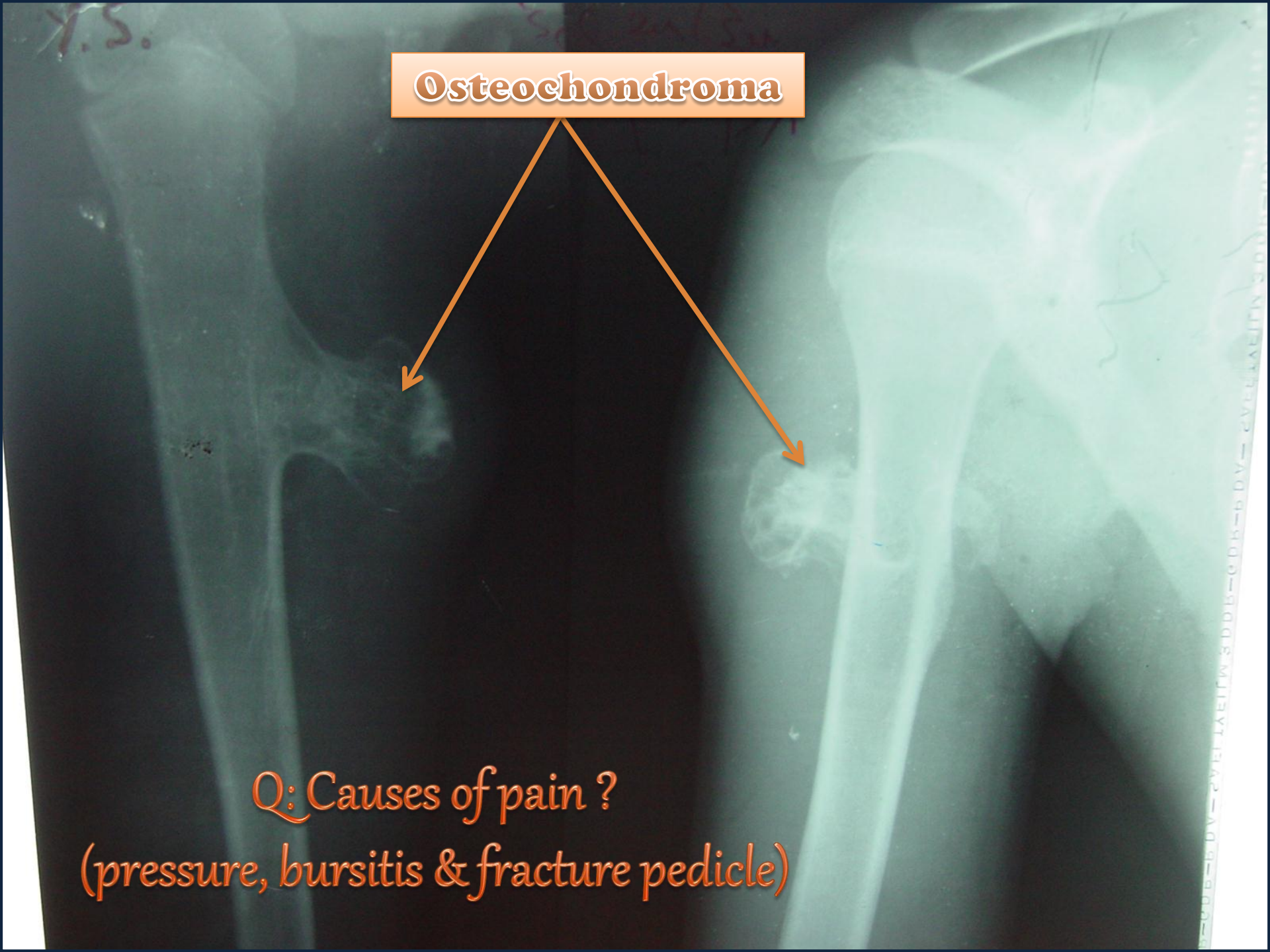
يا إلهي ... يكونش ... انفجاااااااااار
:D

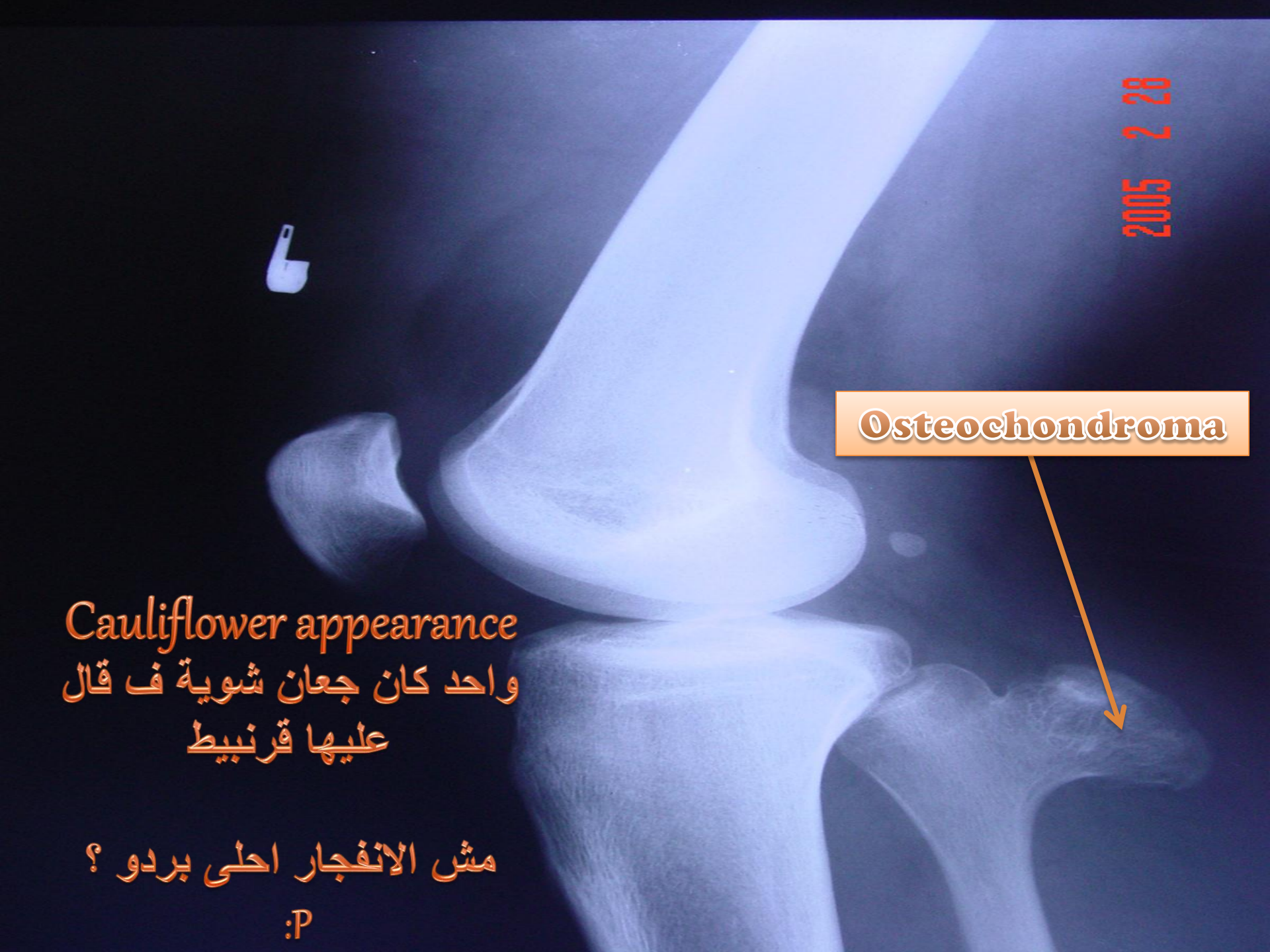
الانفجار ده ب لغة الطب يعني exostosis

و اي انفجار محتاج حاجتين يمسكوا في بعض
عشان يفرقعوا ... الحاجتين هما
osteo w chondro

يبقى الصورة دي بتاعة
osteochondroma :D




Osteochondroma
Q: Causes of pain ?
(pressure, bursitis & fracture pedicle)

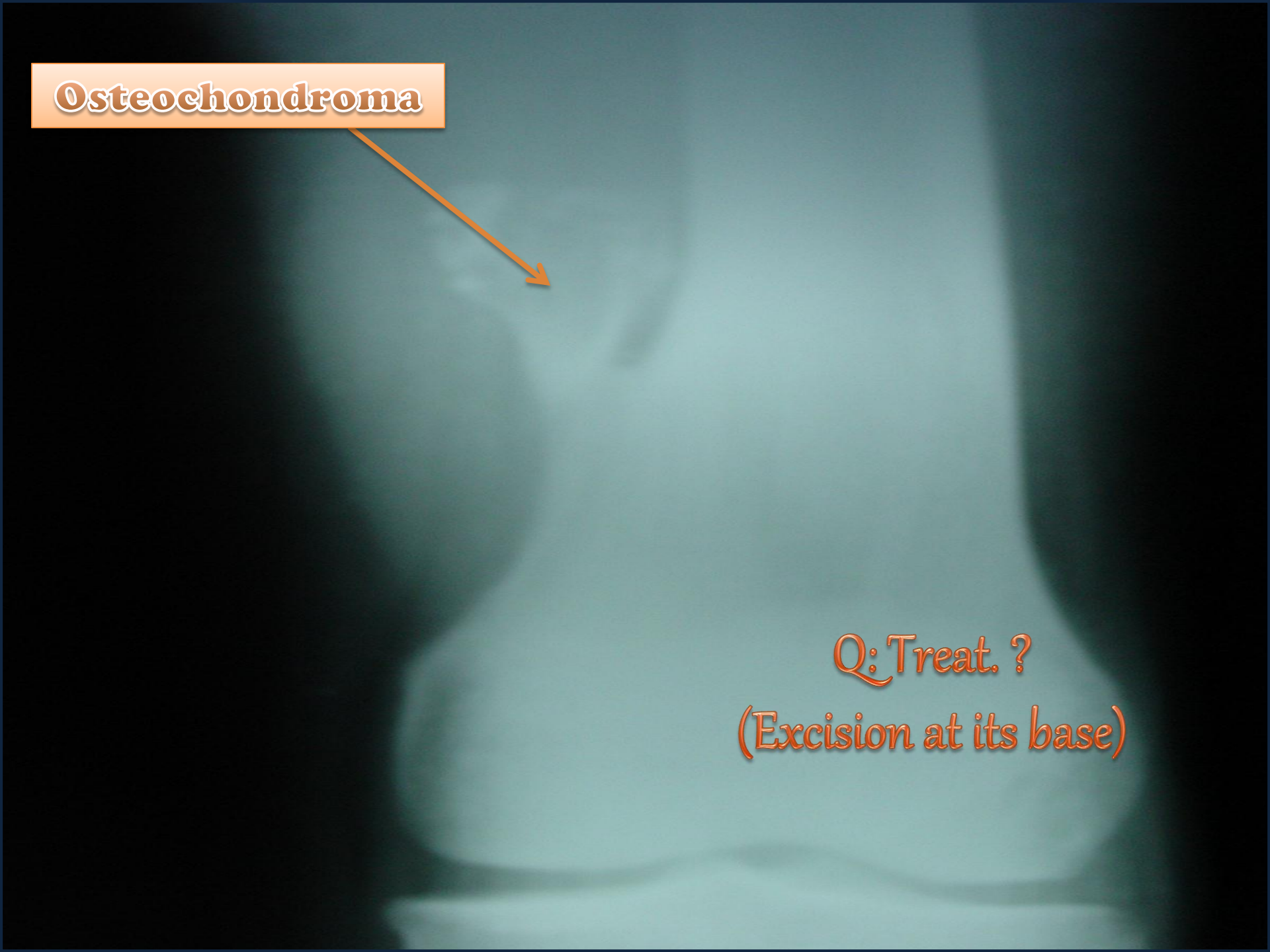


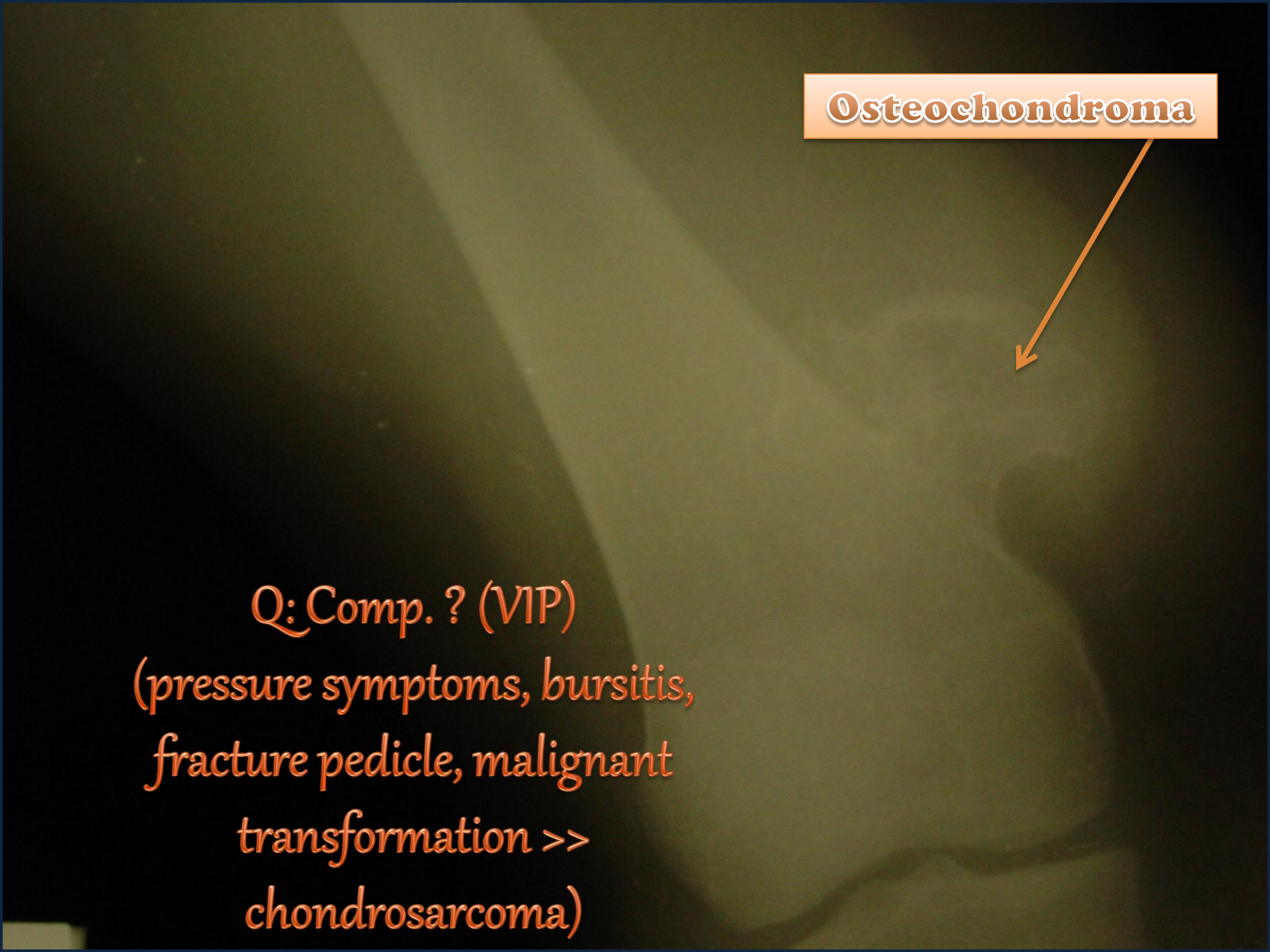
Cauliflower appearance

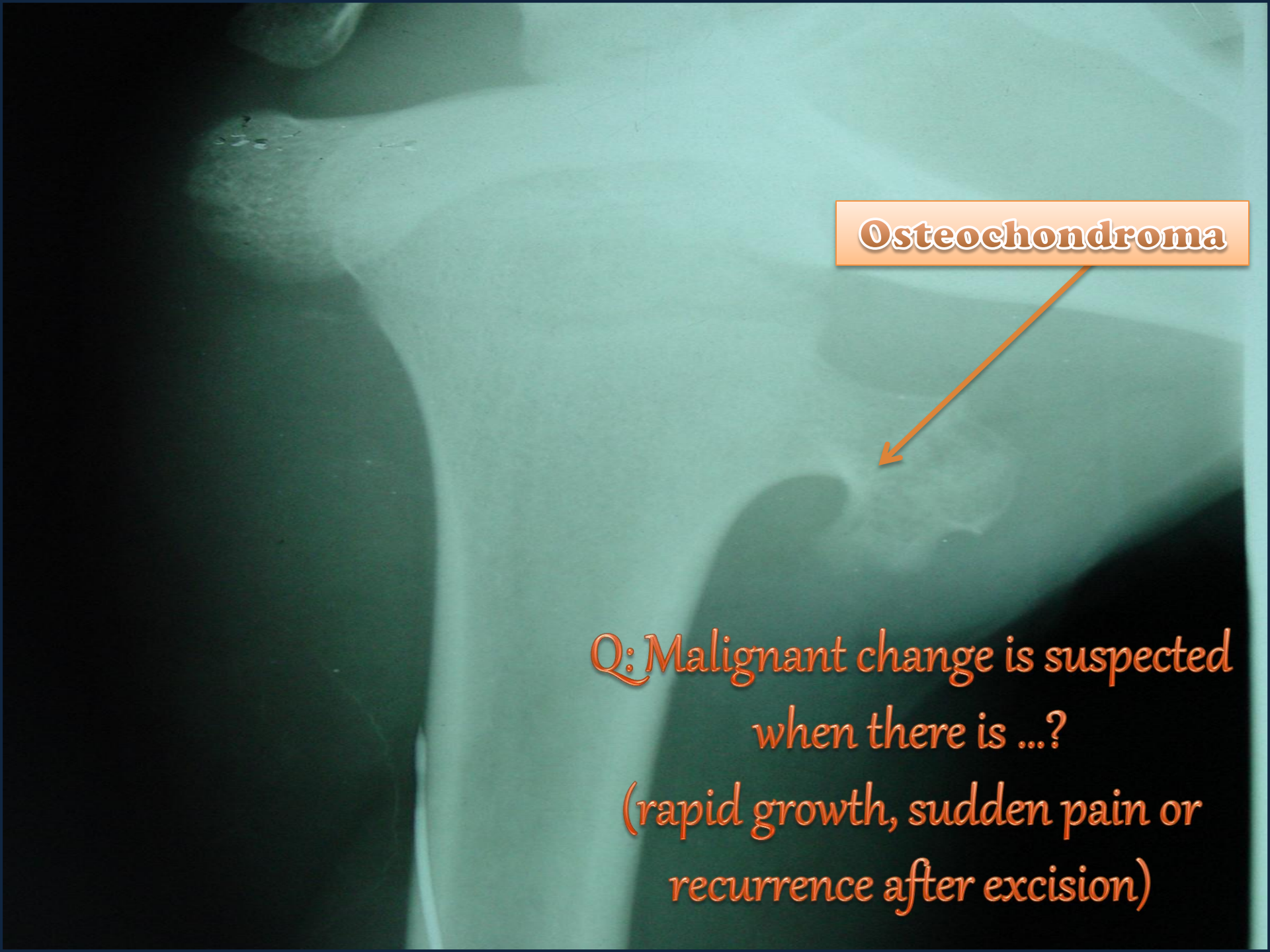
واحد كان جعان شوية ف قال عليها قرنبيط

مش الانفجار احلى بردو ؟

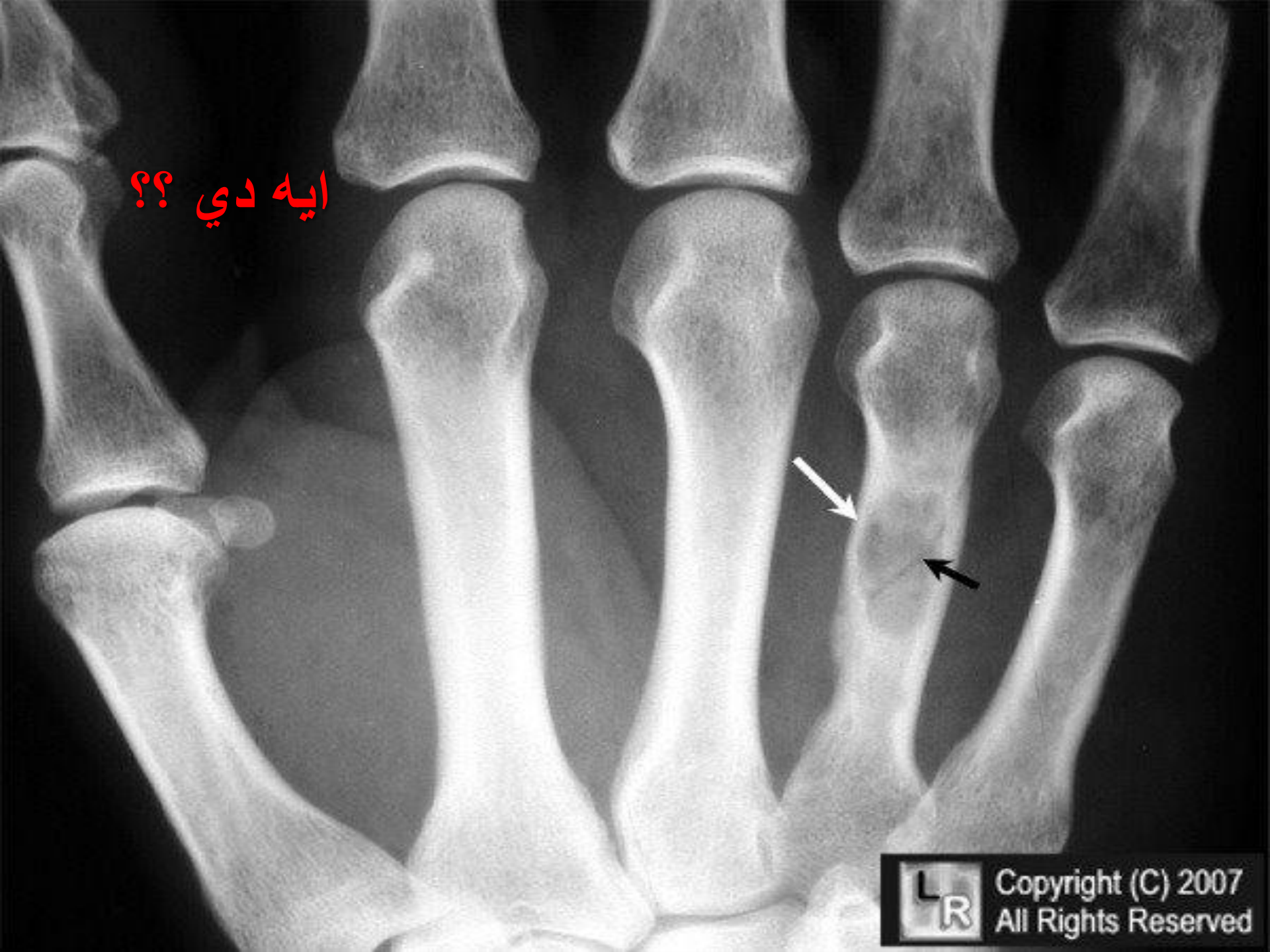
:P

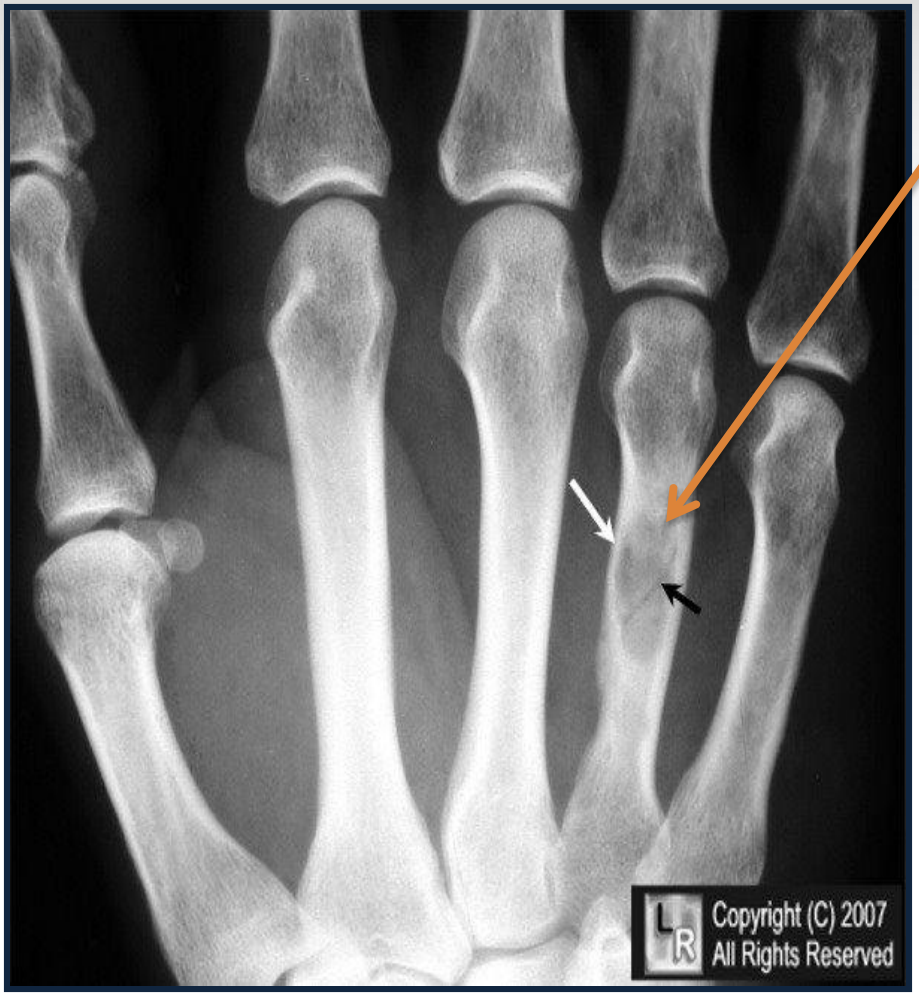

Osteochondroma
Q: Treat. ?
(Excision at its base)


Osteochondroma
Q: Comp. ? (VIP)
(pressure symptoms, bursitis, fracture pedicle, malignant transformation >> chondrosarcoma)



Q: Malignant change is suspected when there is ...?
(rapid growth, sudden pain or recurrence after excision)


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نوصف اللي شايفينه ... شايف بقعة في وسط العضمة

فييين ؟؟؟ في **وسط** العضمة ... يعني **جواها** مش براها

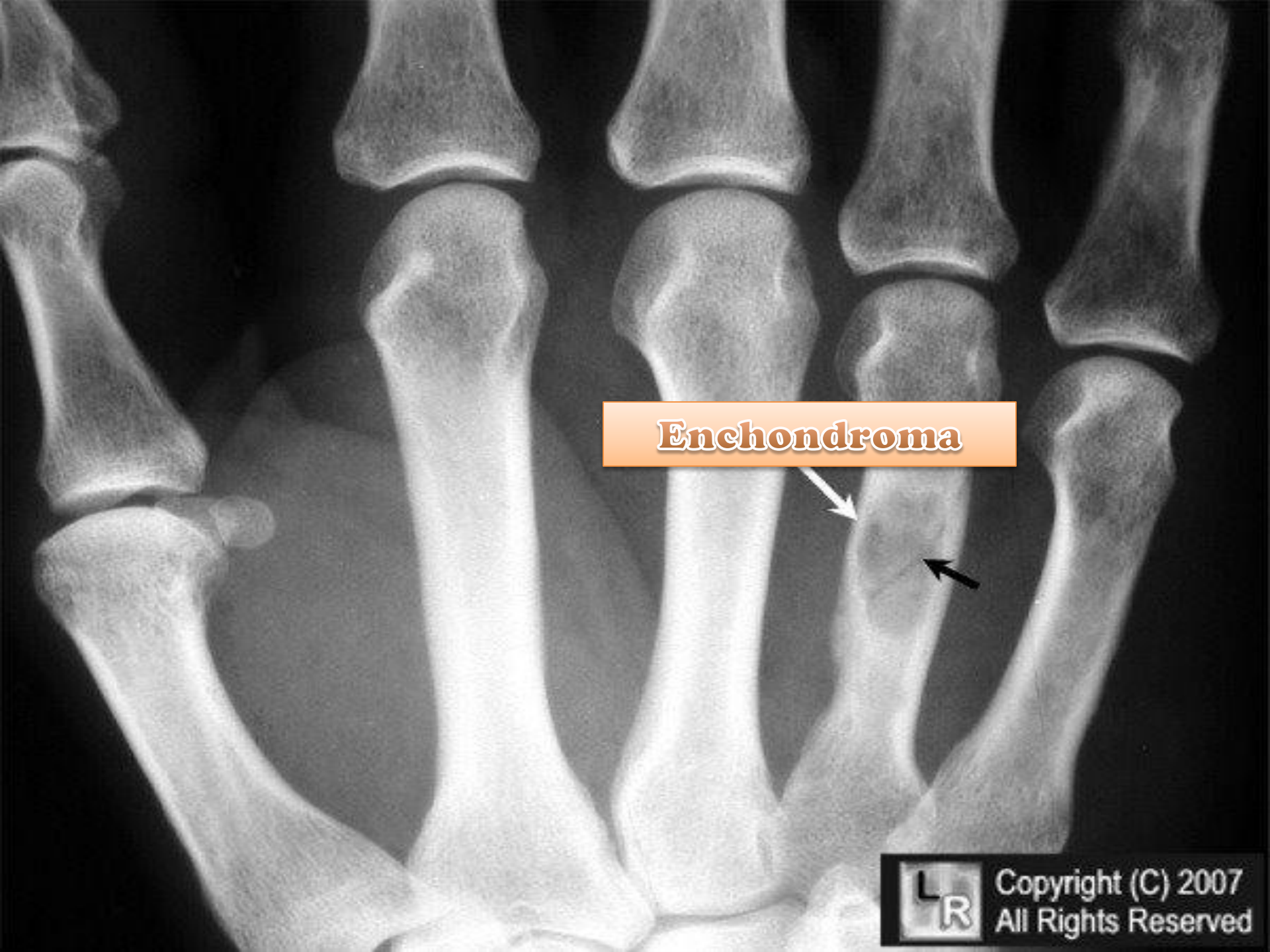
يعني In aw **En**

يبقى دي حالة **En**chondroma

طيب حبة قلش بقى : اي بقعة بتتشال ب ايه ؟
ماحدش يقوللي ب برسيل عشان ما اشتمش :D
لازم مع البرسيل يبقى في دعك و **كحت** جامد

و هيا دي بقى طريقة العلاج ... الكحت Curettage

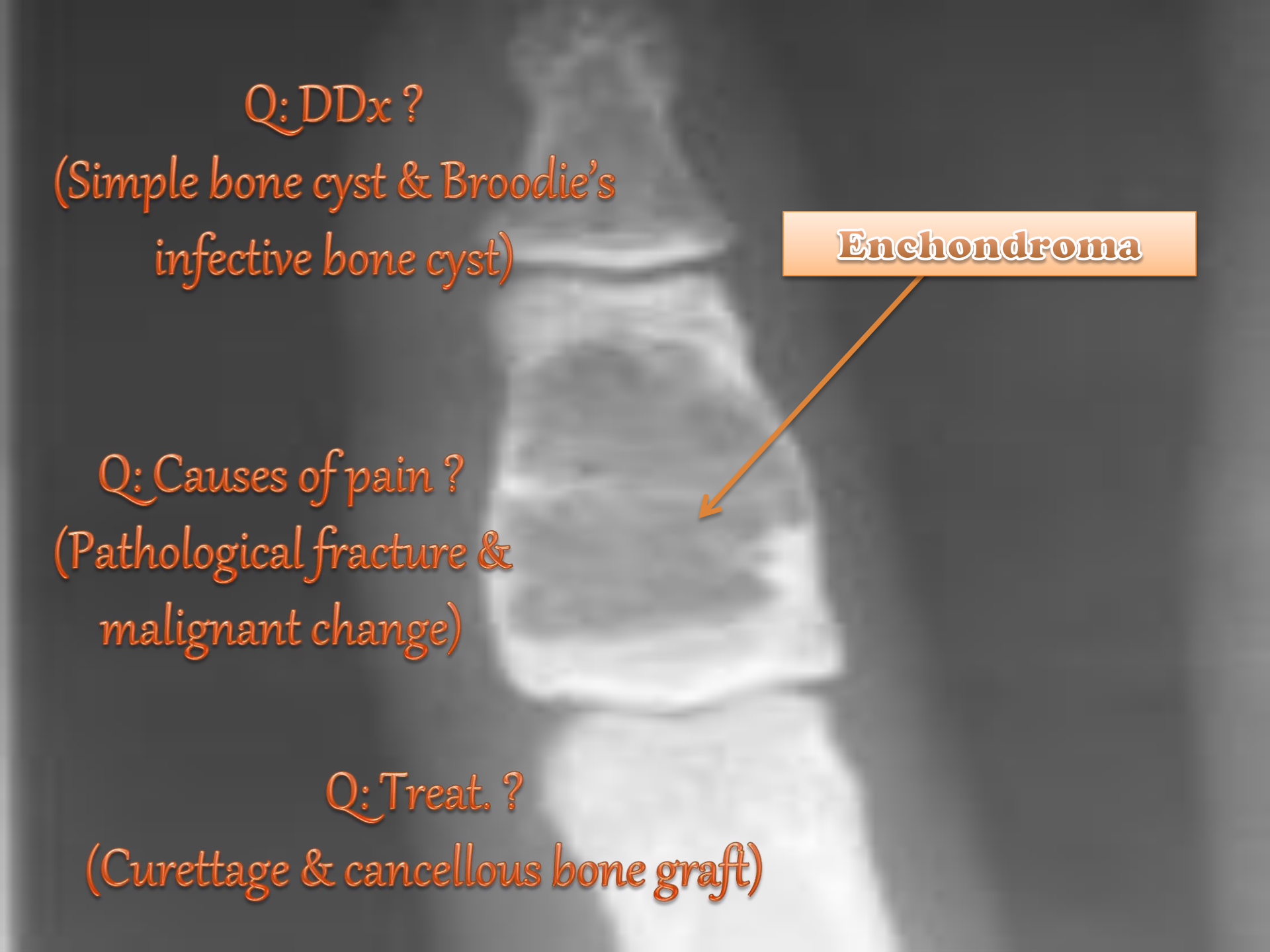



Enchondroma
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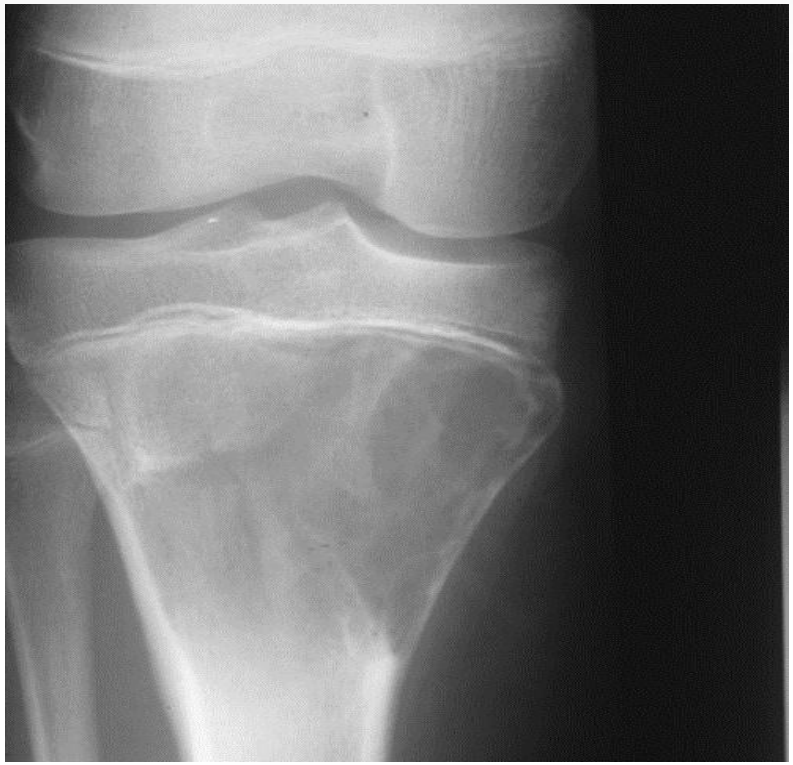


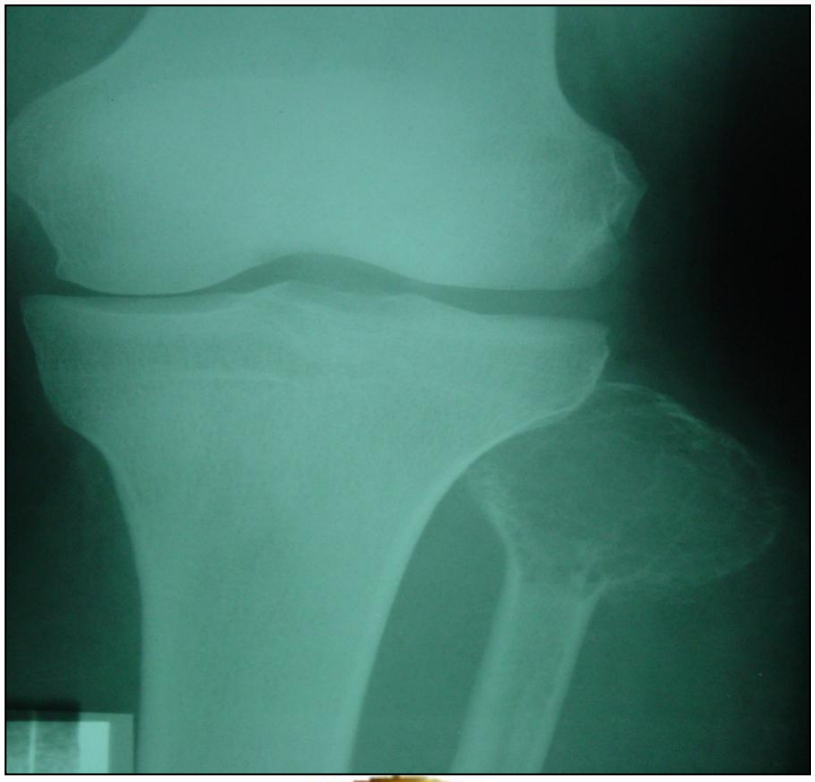
في نص العضمة و شكلها مميز
كحت D:



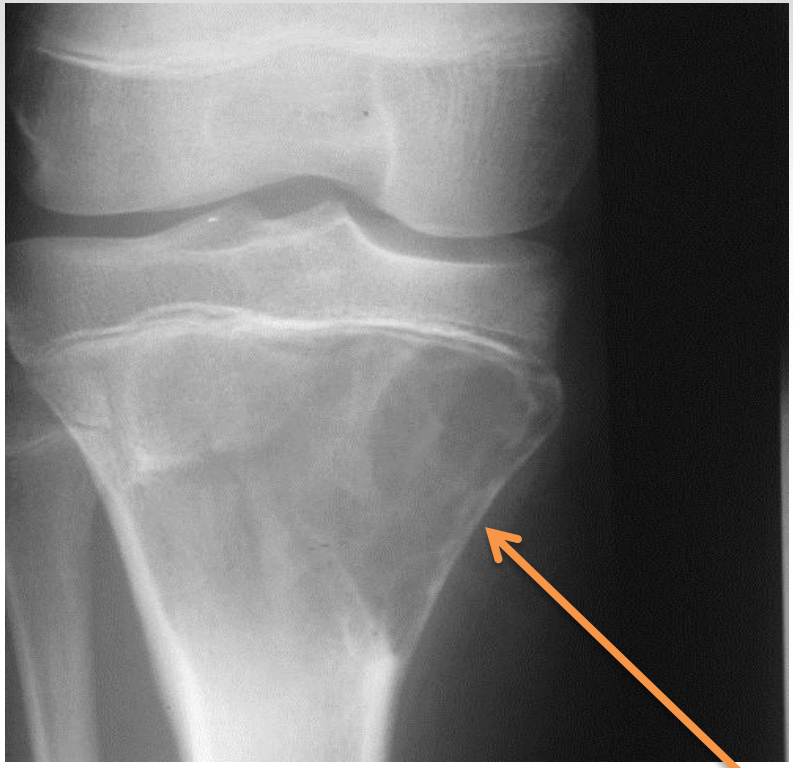

Q: DDx ?
(Simple bone cyst & Broodie's infective bone cyst)
Enchondroma
Q: Causes of pain ?
(Pathological fracture & malignant change)
Q: Treat. ?
(Curettage & cancellous bone graft)

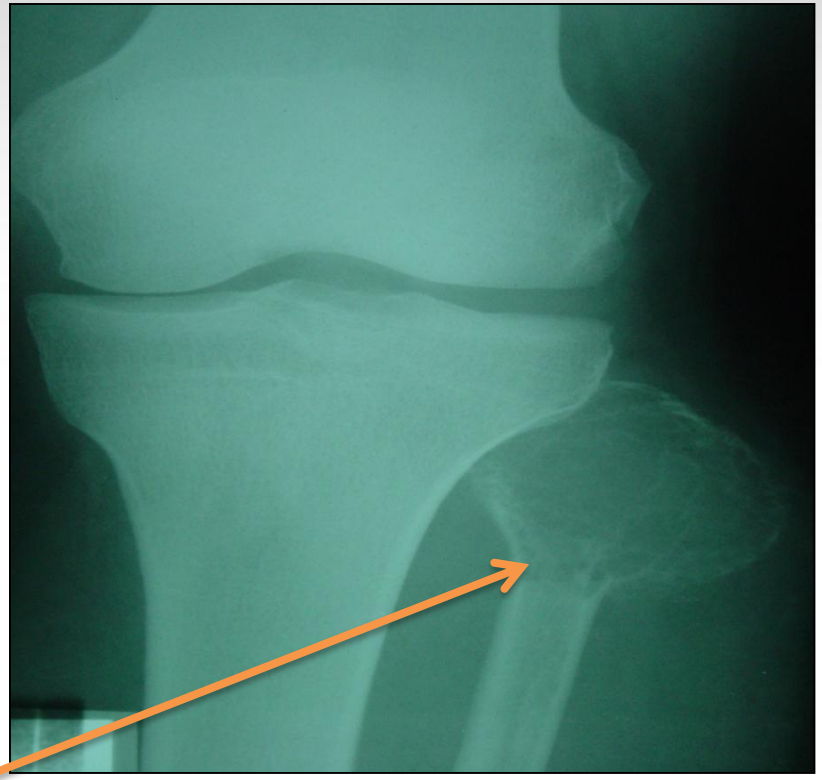
عايزك تركز كويس في الصورتين دول و تقارن مابينهم بالتفصيل الممل



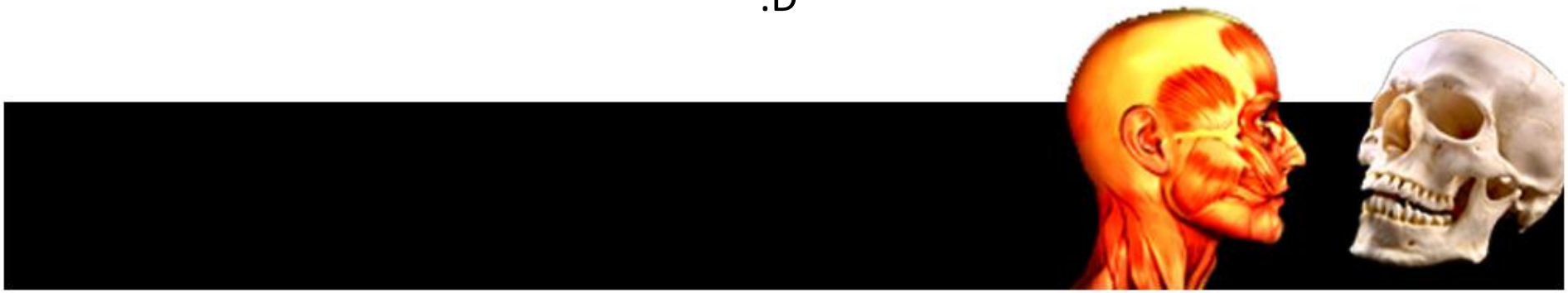


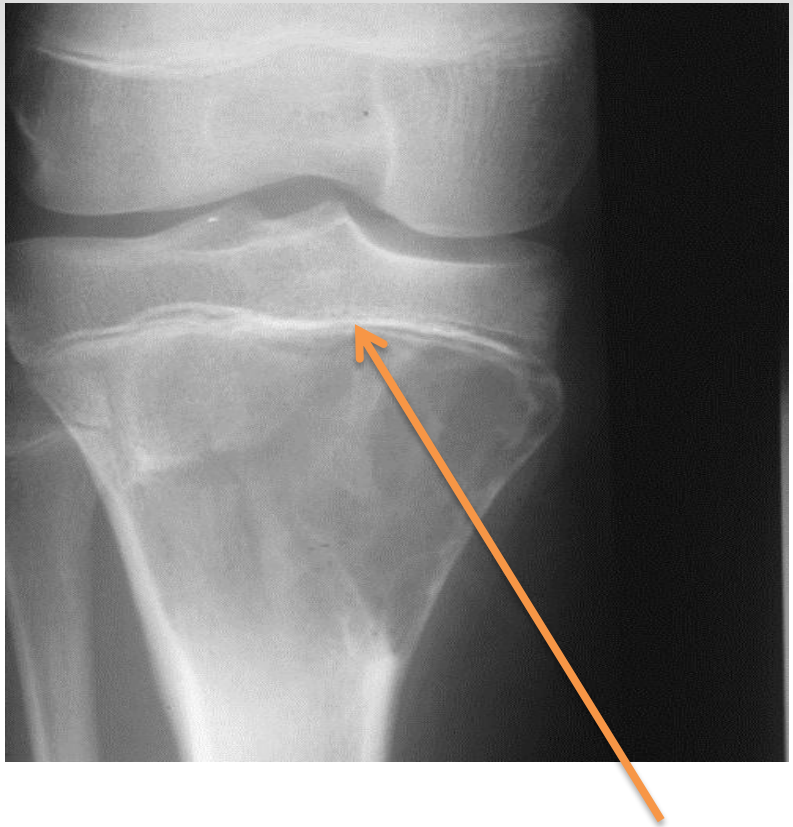






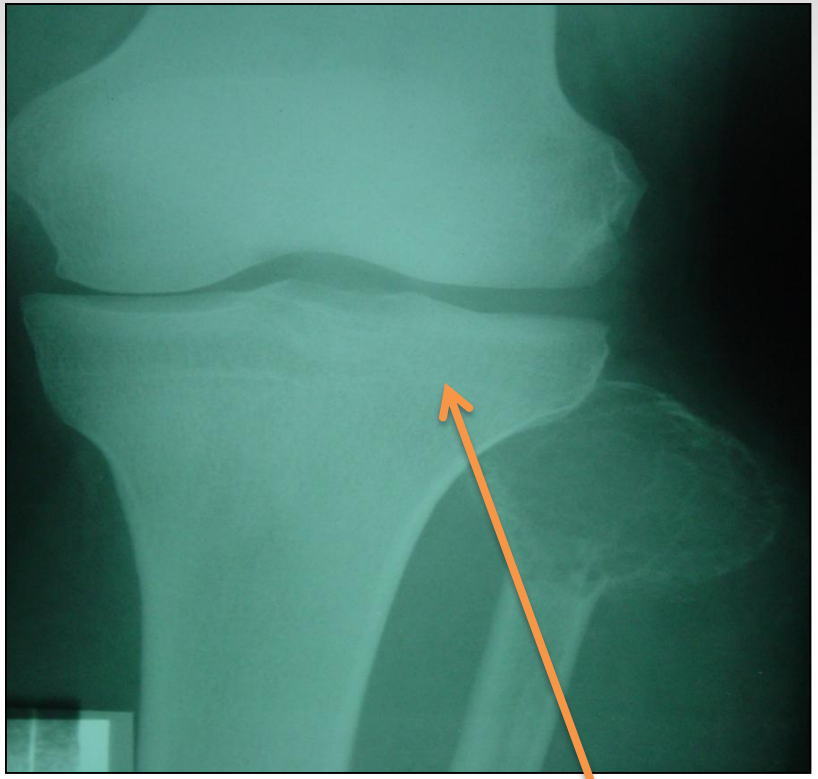
الصورتين بالنسبالك عبارة عن تجويف في العضمة ... صح ؟؟
طيب ما تيجوا نطلع الفروقات (فاكرين السؤال ده بتاعة مجلة ميكي)
:D





de el epiphyseal plate mawgood

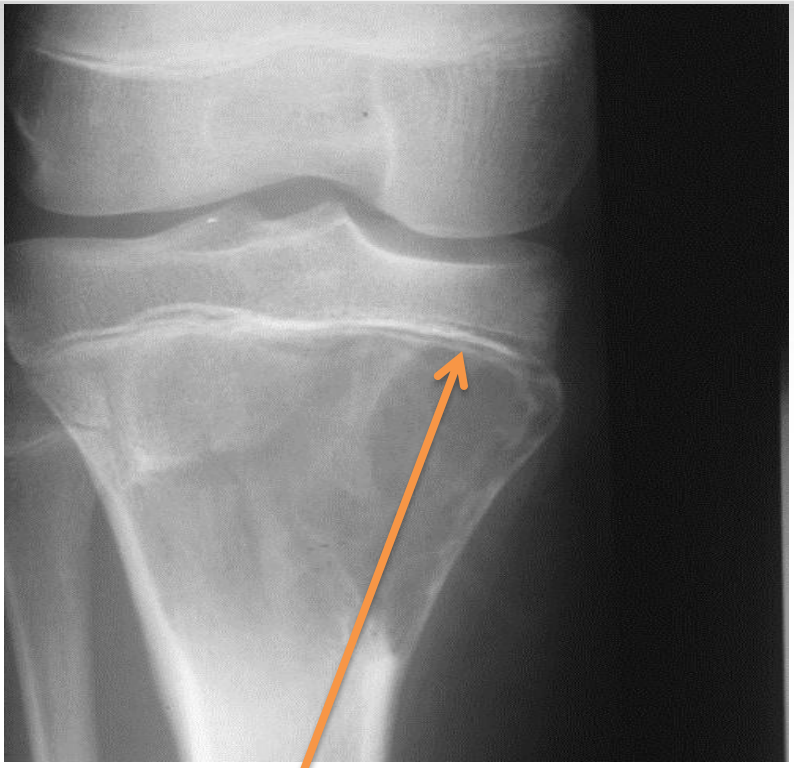
يعني لسة عيل صغير



de el epiphyseal plate e5tafa

يعني راجل كبيييييييييييييير

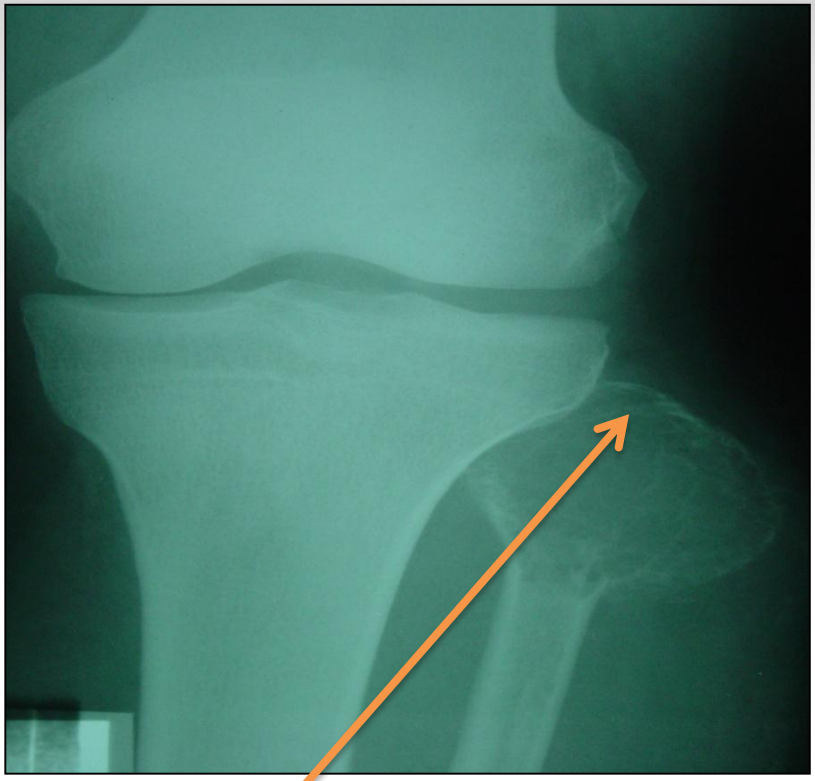




el lesion hena mate2darsh te3ady el epiphysis

عشان هيا لسة صغيرة و ماعندهاش عقل

(a-neuro = مافييش عقل)

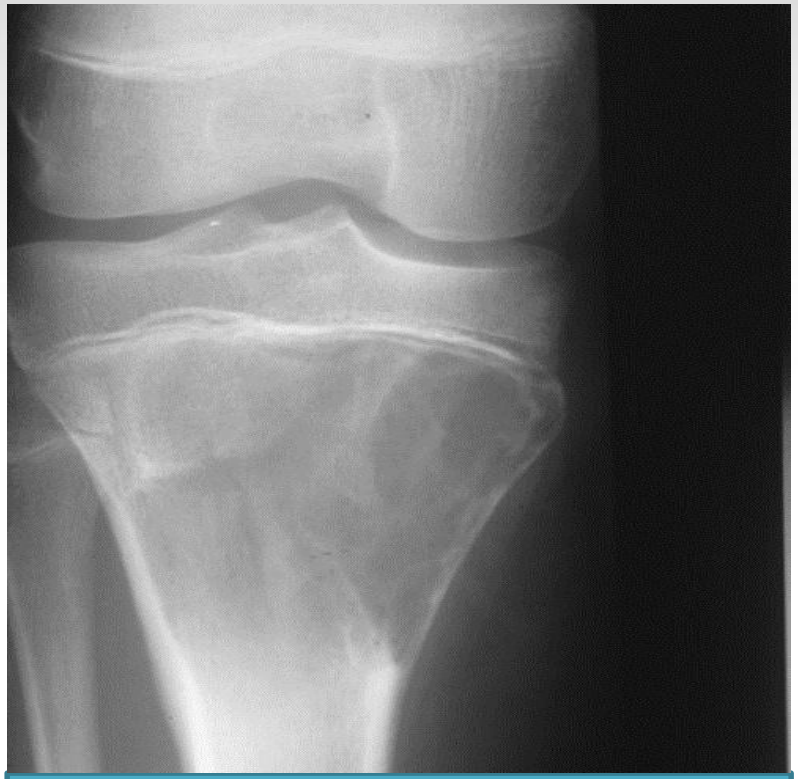


el lesion hena ta3adet el epiphysis

عشان هيا كبيييييييييييرة و مالهاش كبير :D

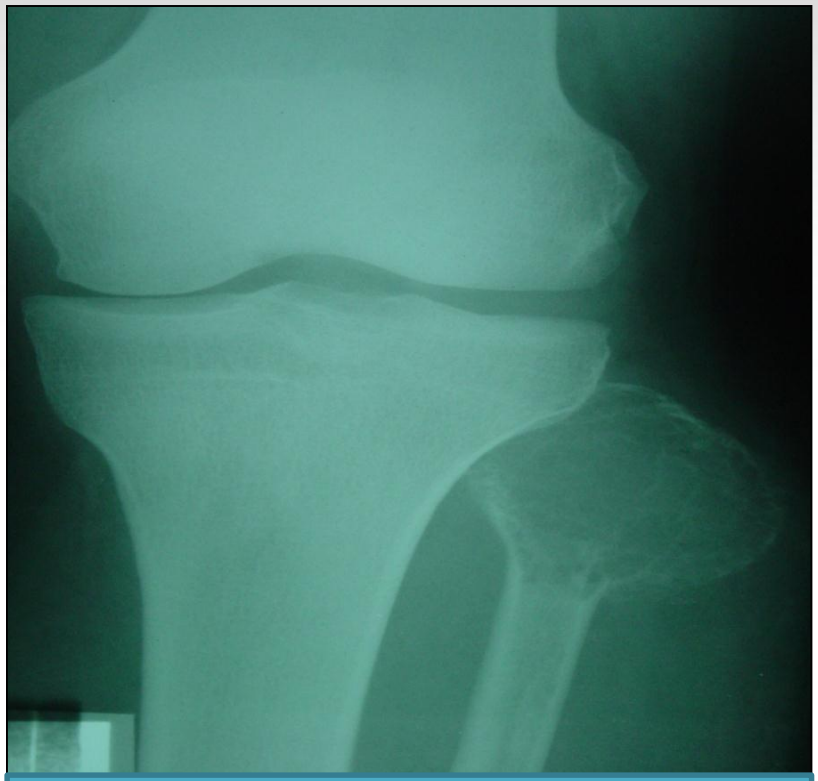
(Giant = كبيييييييرة)





A-neuro

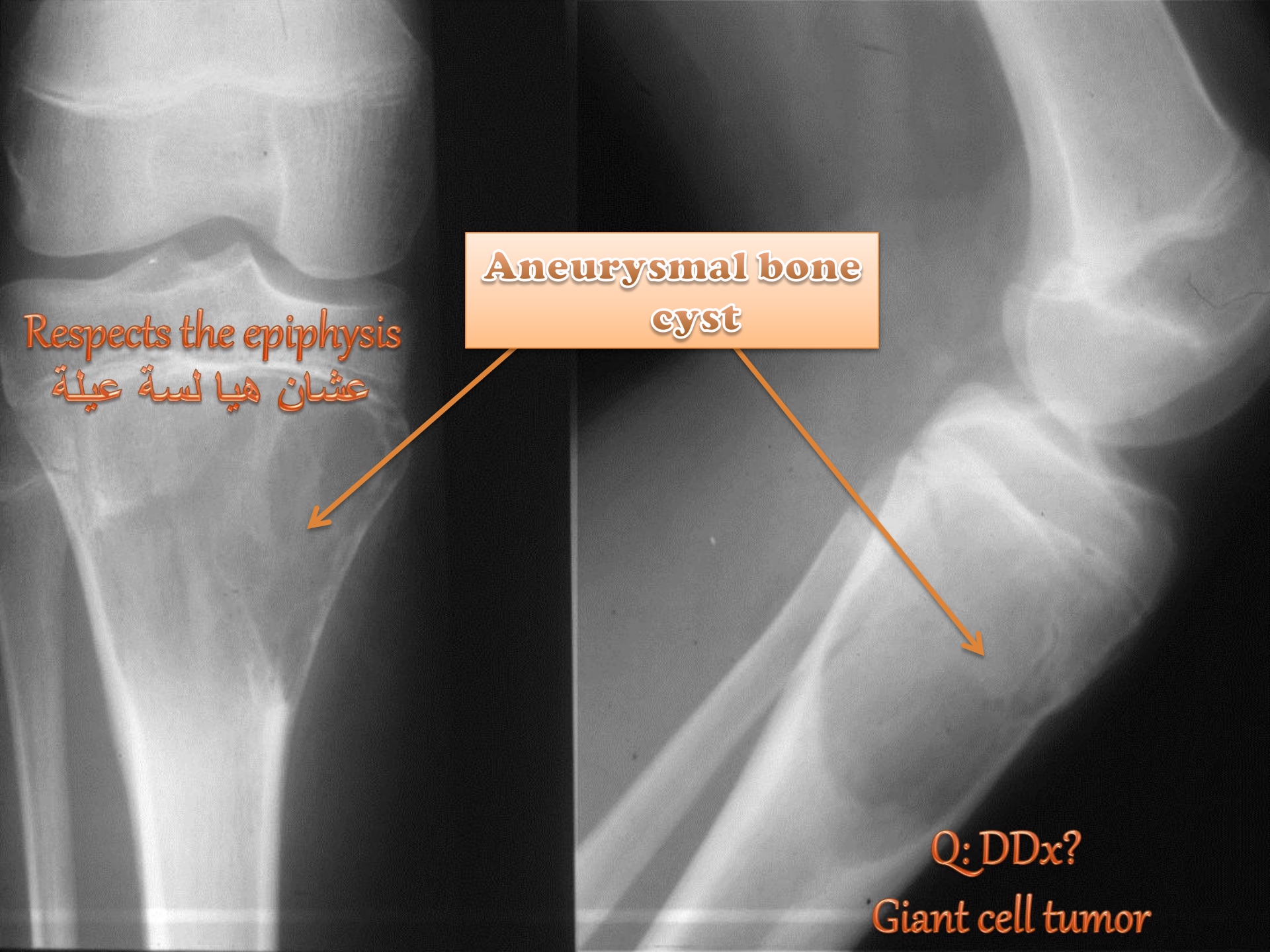
Aneurysmal bone cyst

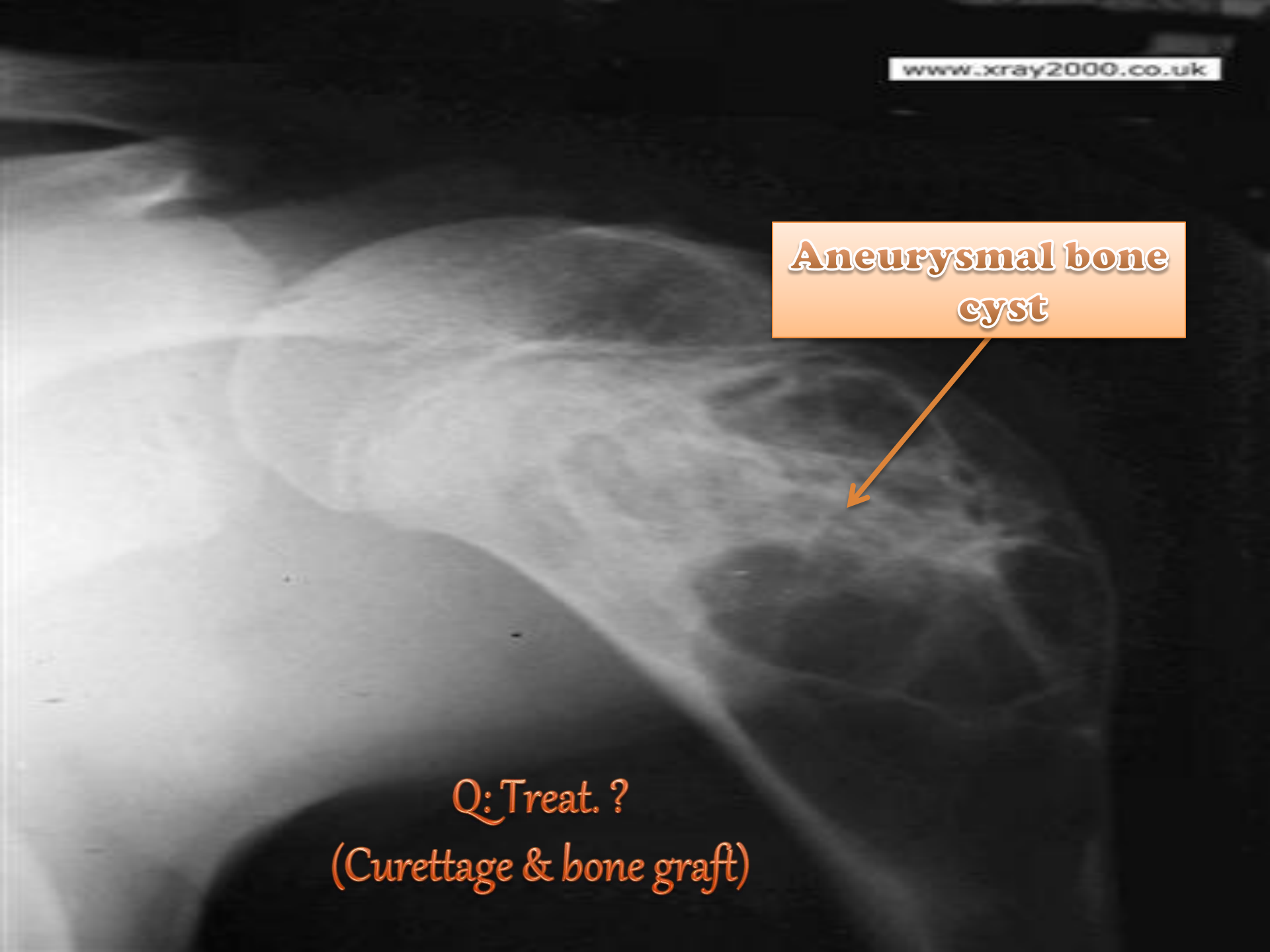


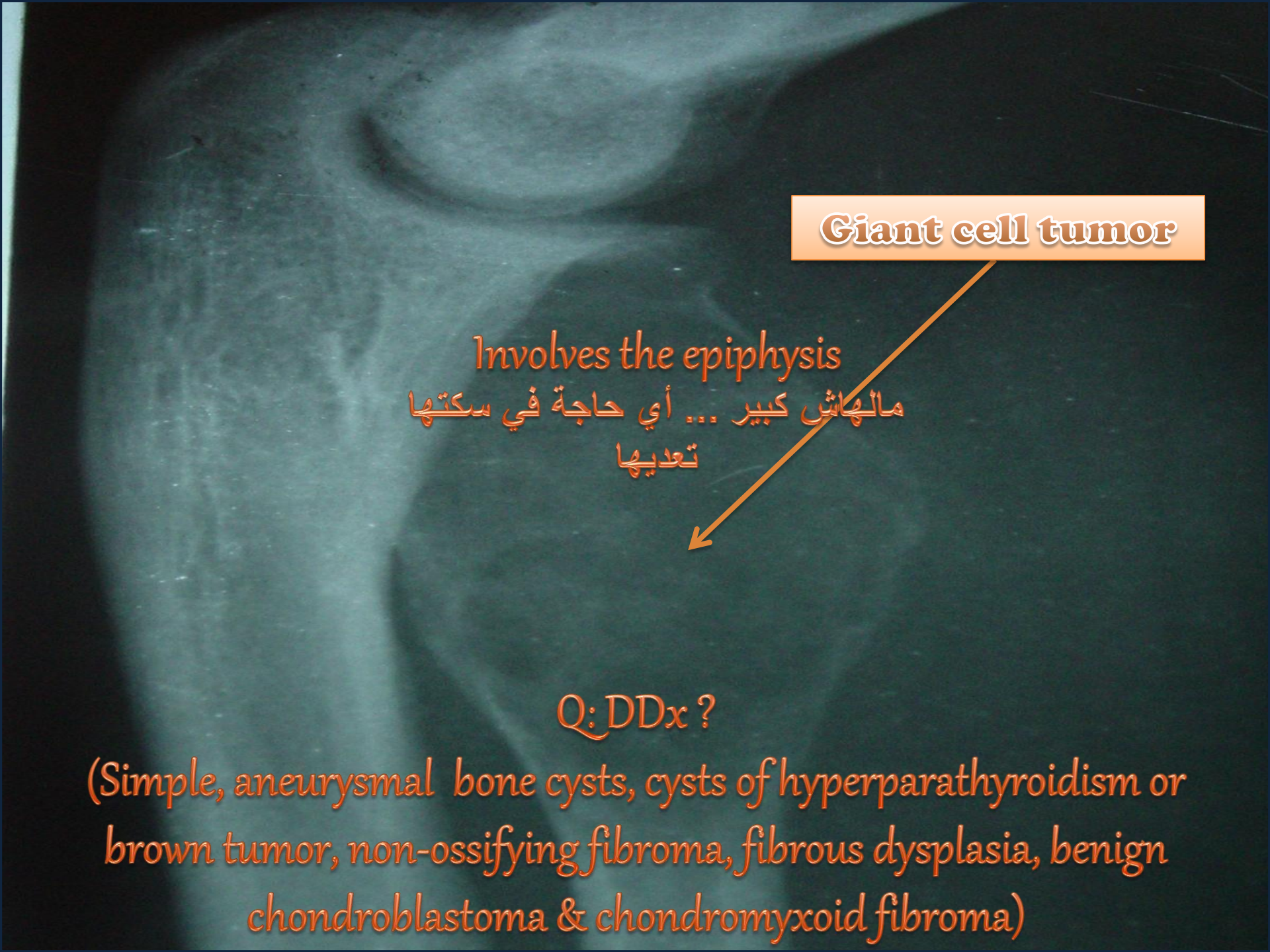
Giant

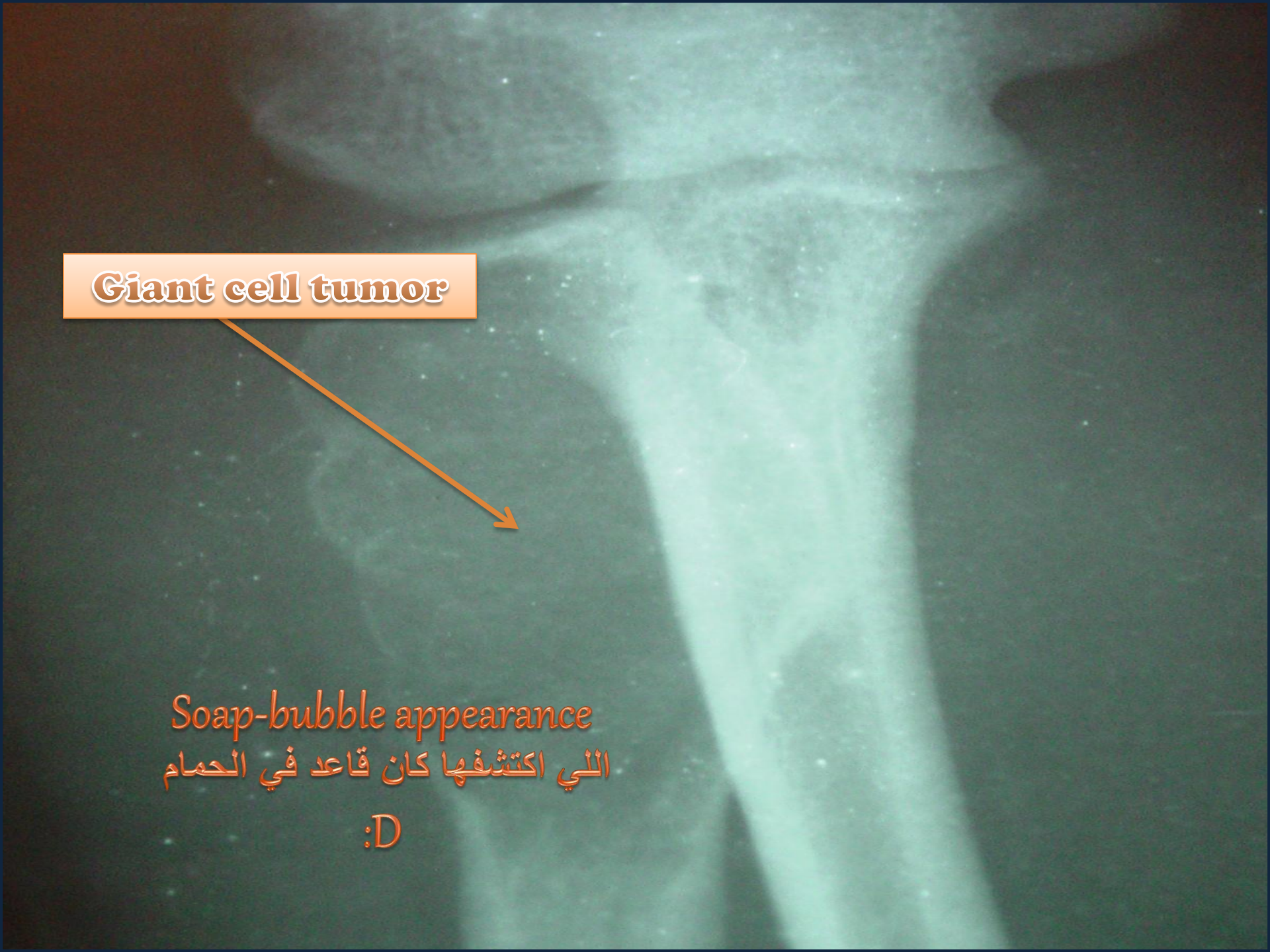
Giant cell Tumor (Osteoclastoma)

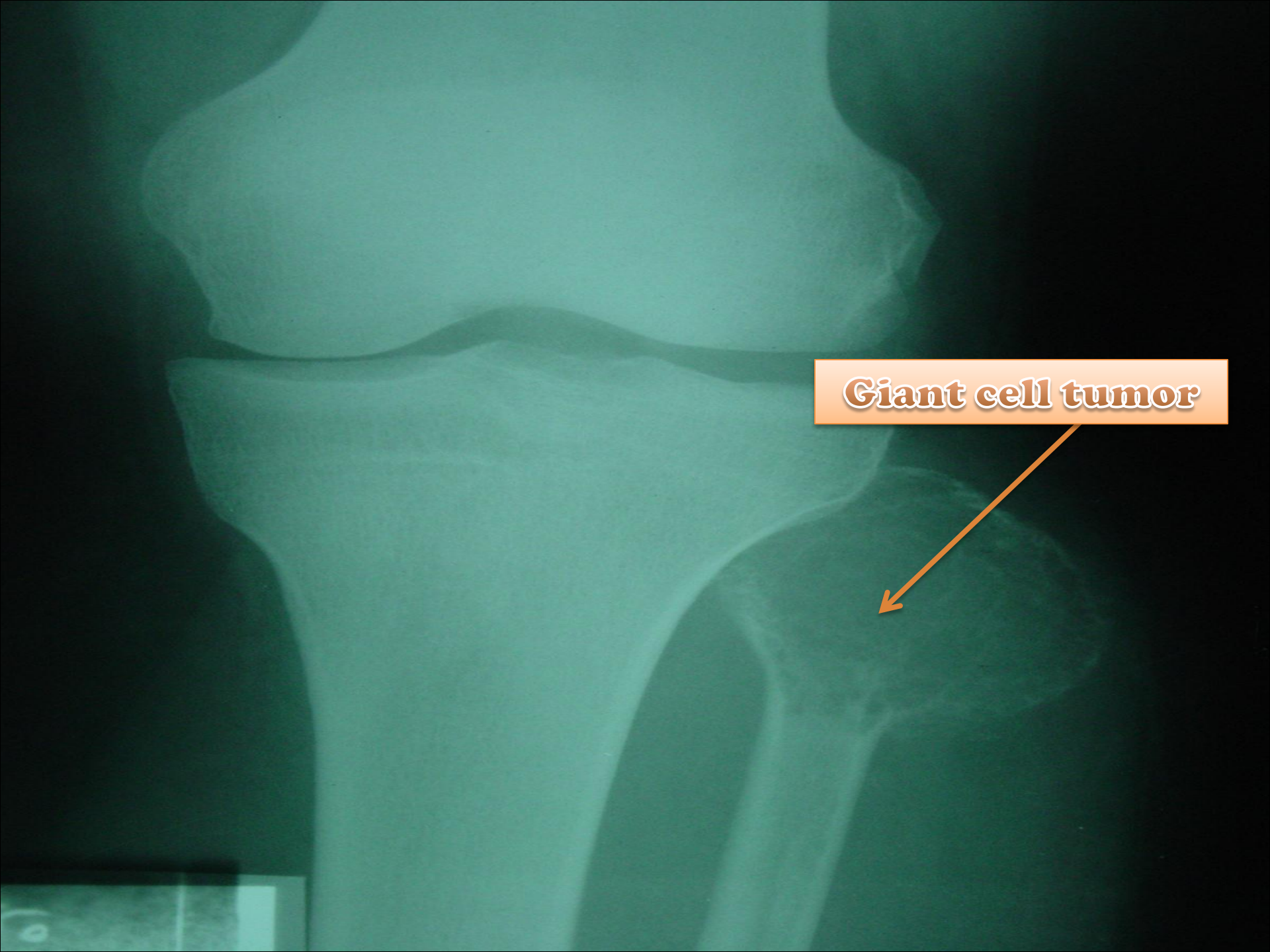


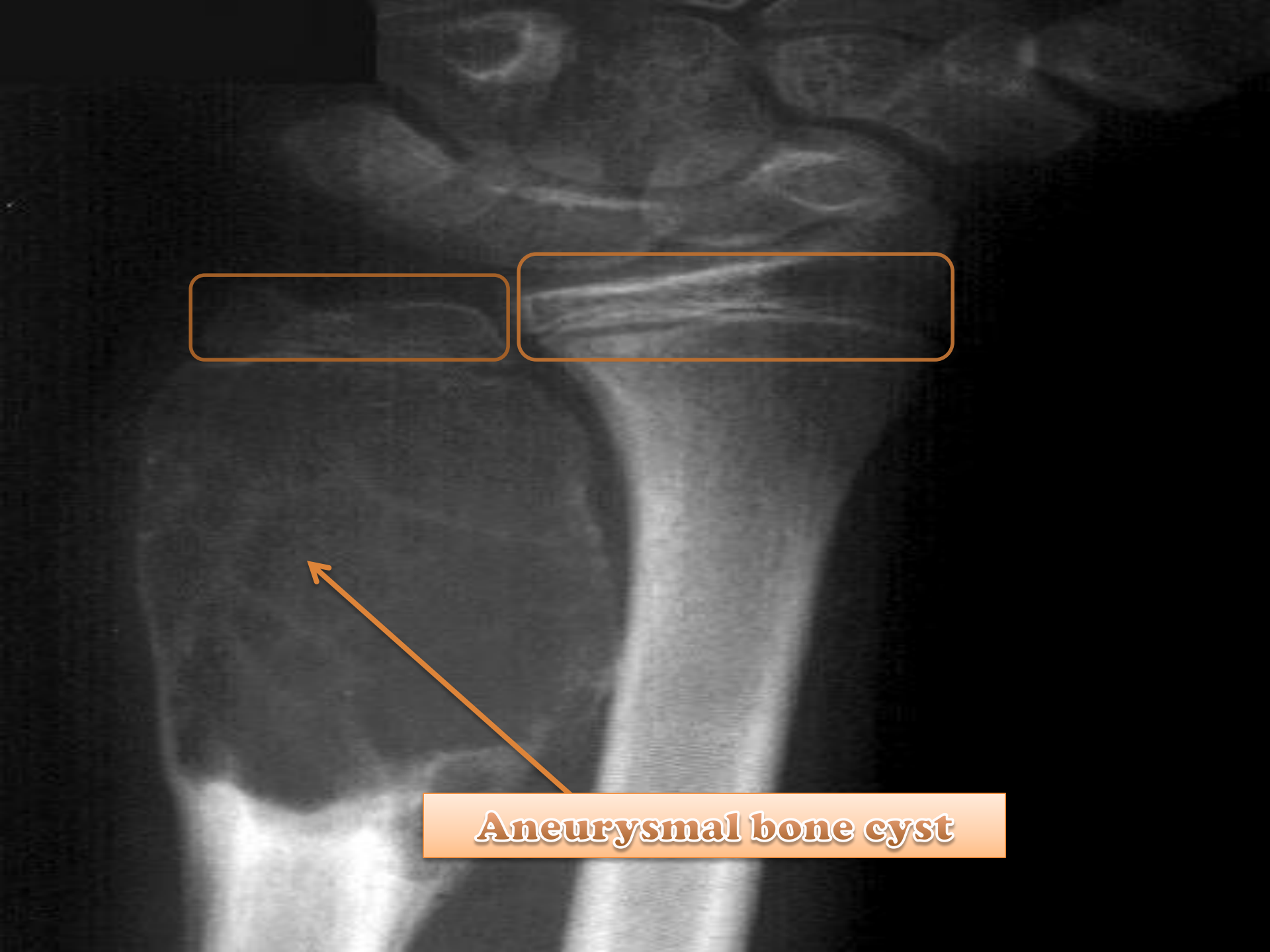

Aneurysmal bone cyst
Respects the epiphysis
عشان هيا لسة عيلة
Q: DDx?
Giant cell tumor

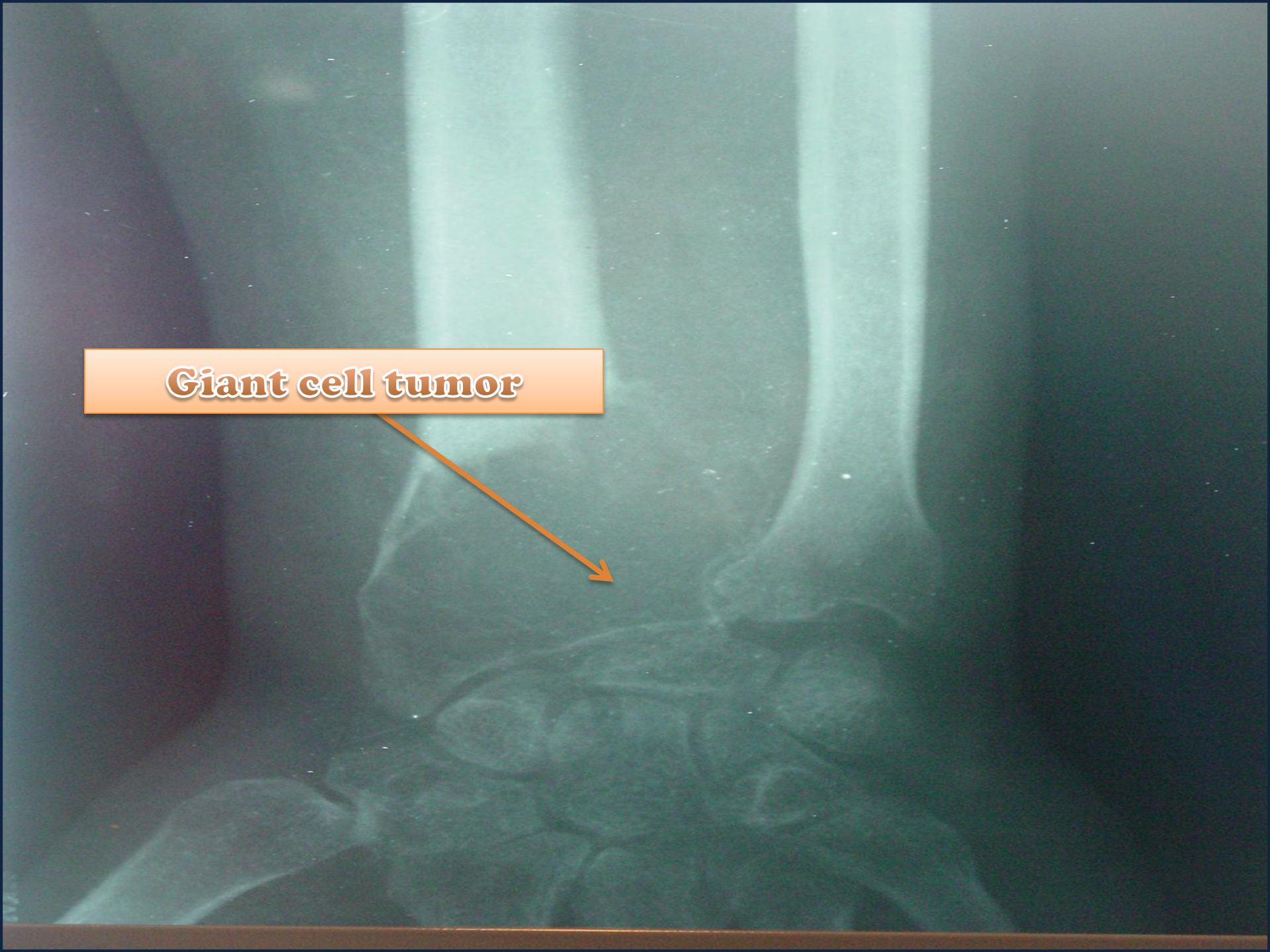

www.xray2000.co.uk
Aneurysmal bone cyst
Q: Treat. ?
(Curettage & bone graft)


Giant cell tumor
Involves the epiphysis
مالهاش كبير ... أي حاجة في سكتها
تعديها
Q: DDx ?
(Simple, aneurysmal bone cysts, cysts of hyperparathyroidism or brown tumor, non-ossifying fibroma, fibrous dysplasia, benign chondroblastoma & chondromyxoid fibroma)

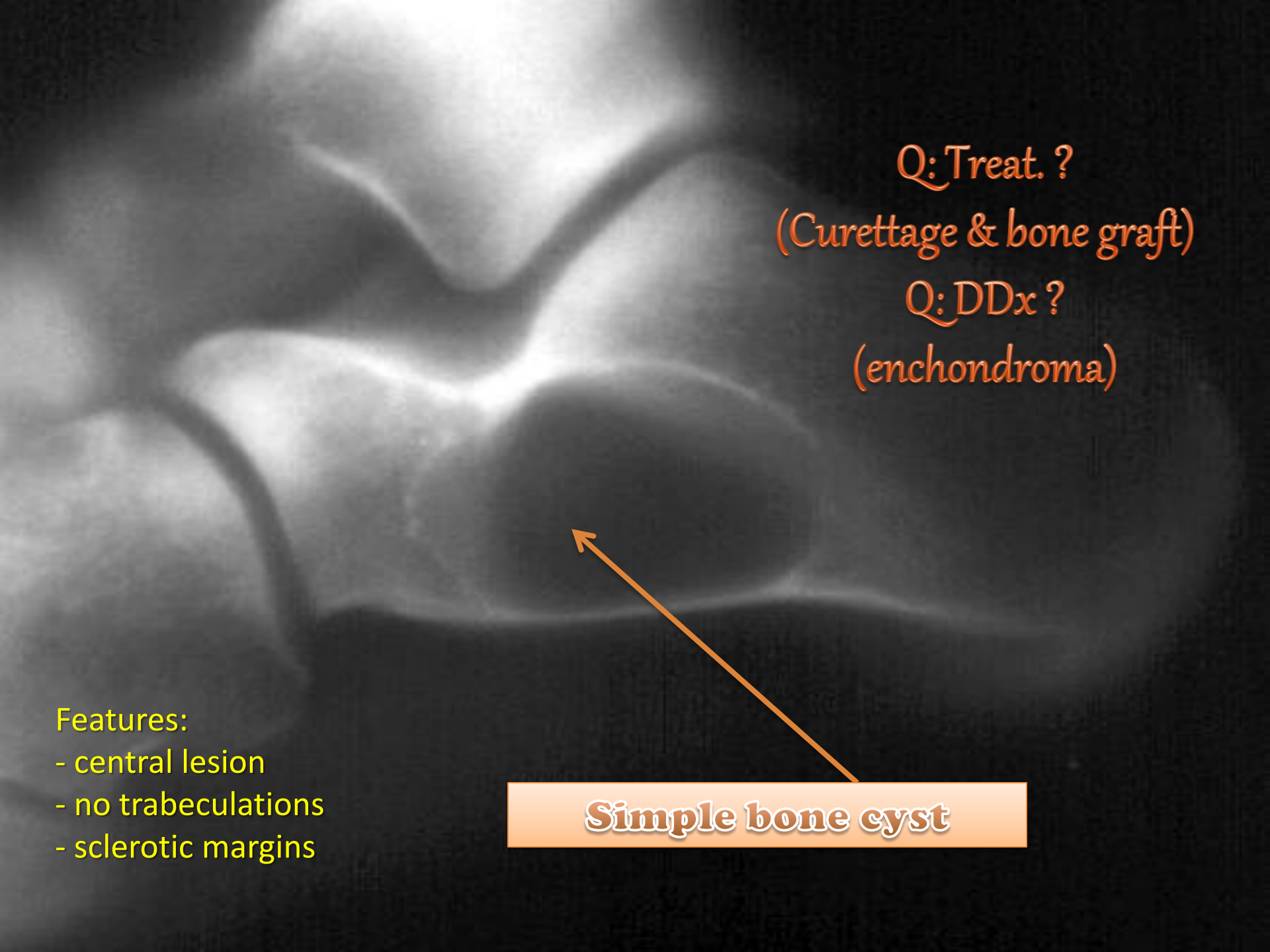

Giant cell tumor
Soap-bubble appearance
اللي اكتشفها كان قاعد في الحمام
:D

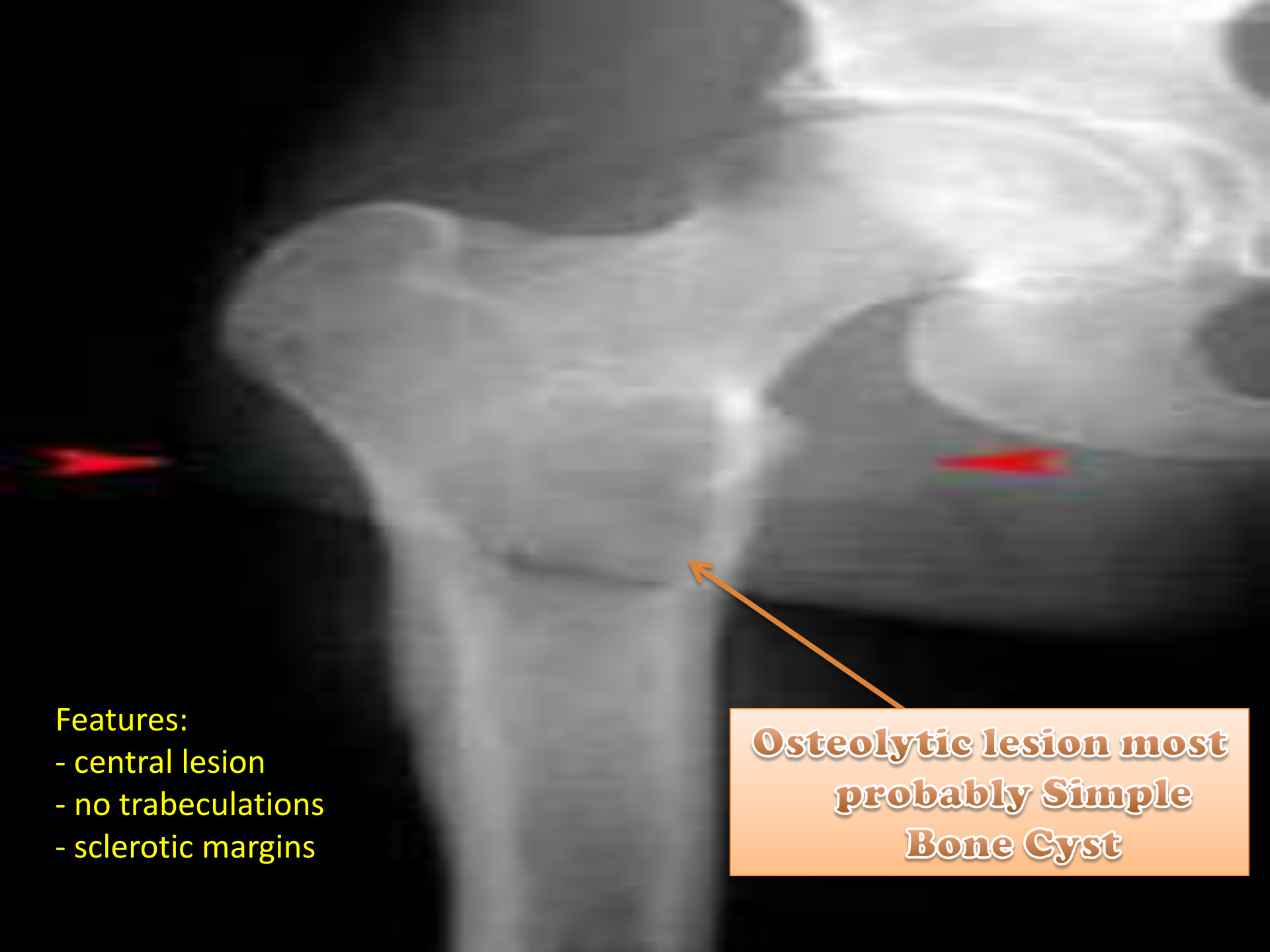

Giant cell tumor


Aneurysmal bone cyst


Giant cell tumor

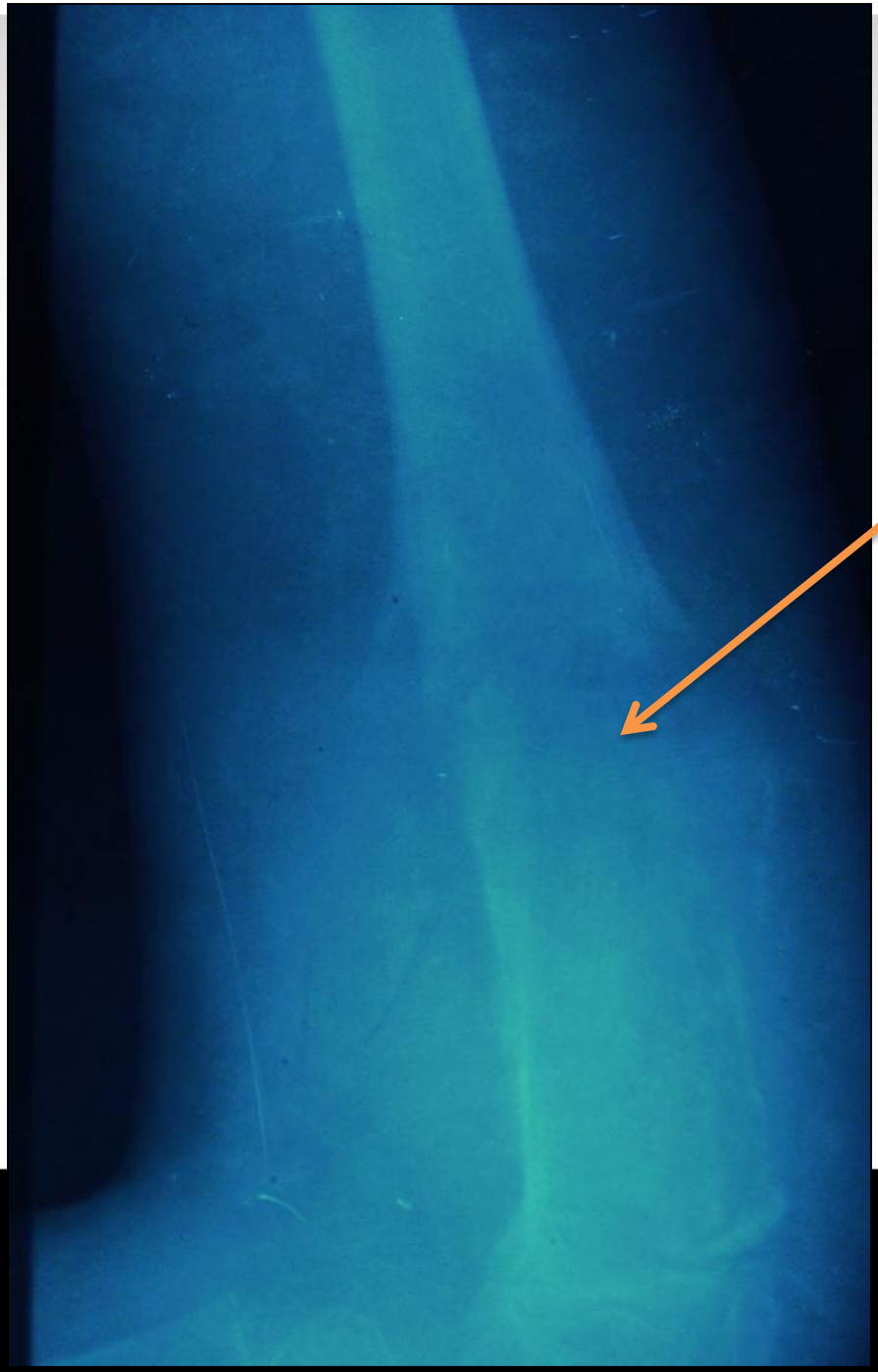

ايه دي ؟؟


Q: Treat. ?
(Curettage & bone graft)
Q: DDx ?
(enchondroma)
Features:
- central lesion
- no trabeculations
- sclerotic margins
Simple bone cyst


Features:
- central lesion
- no trabeculations
- sclerotic margins
Osteolytic lesion most probably Simple Bone Cyst

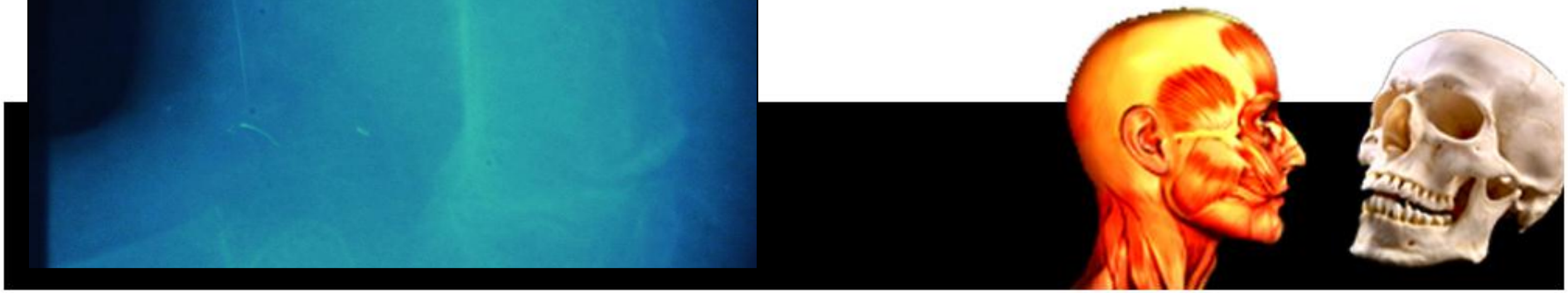
ايه دي ؟؟

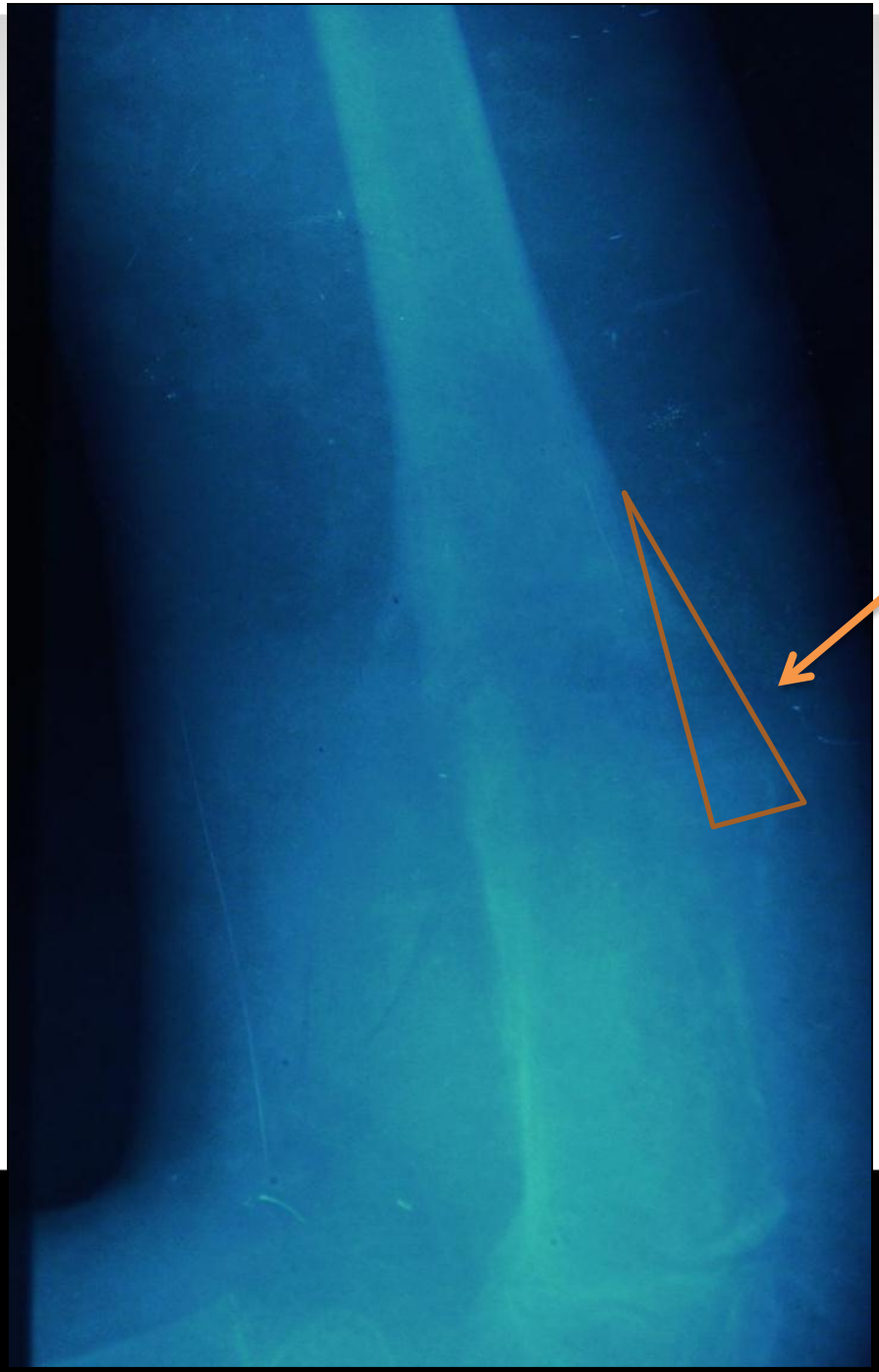




بص يا عم الحج انا اتفاجئت زيي زيك بالظبط

بس انا حاسس ان العضمة متاكلة شوية من هنا



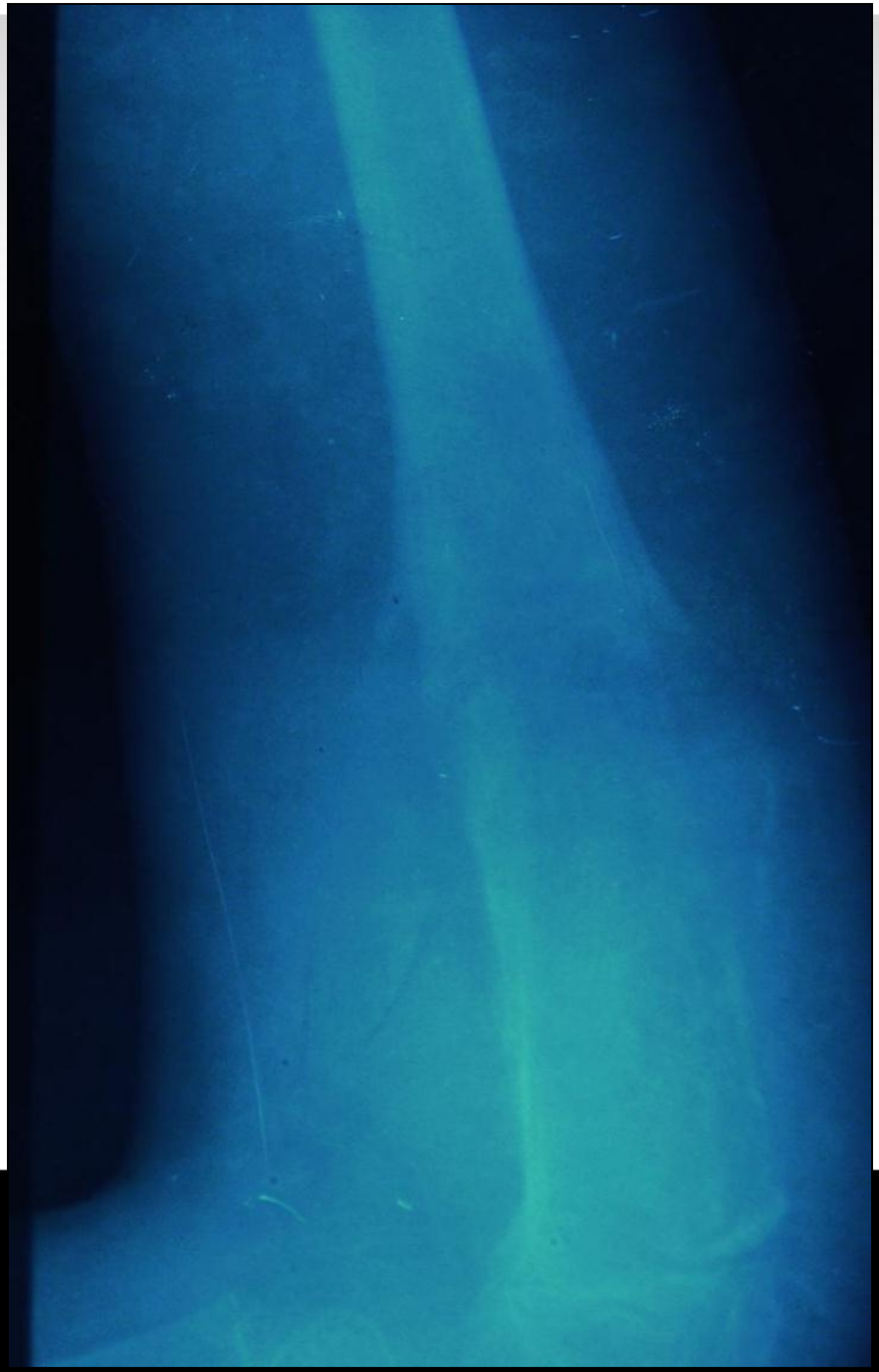


بص يا عم الحج انا اتفاجئت زيي زيك بالظبط

بس انا حاسس ان العضمة متاكلة شوية من هنا

و كمان حاسس ان في حتة زيادة هنا عاملالي مثلث





بص يا عم الحج انا اتفاجئت زيي زيك بالظبط

بس انا حاسس ان العضمة متاكلة شوية من هنا

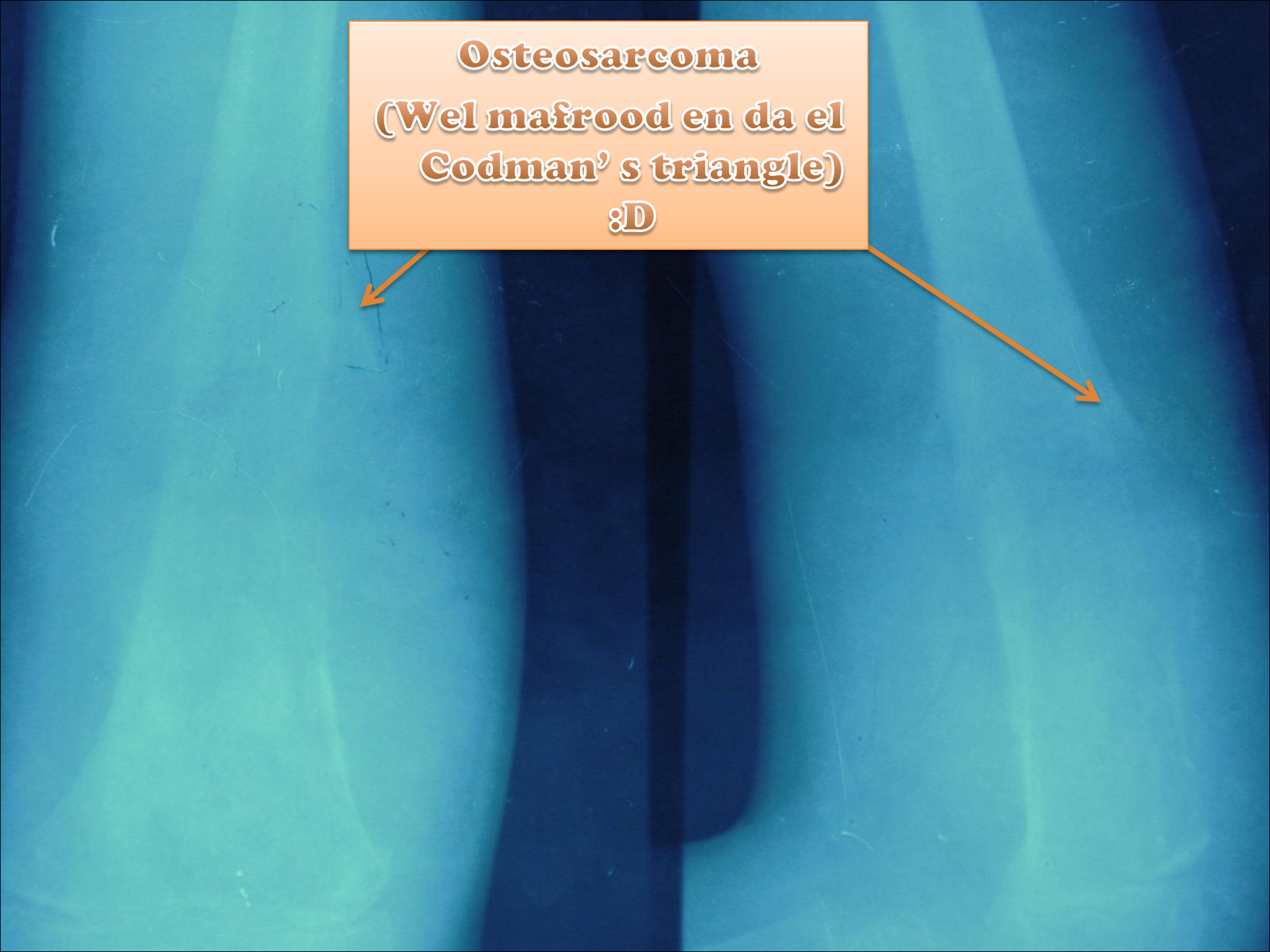
و كمان حاسس ان في حتة زيادة هنا عاملالي مثلث

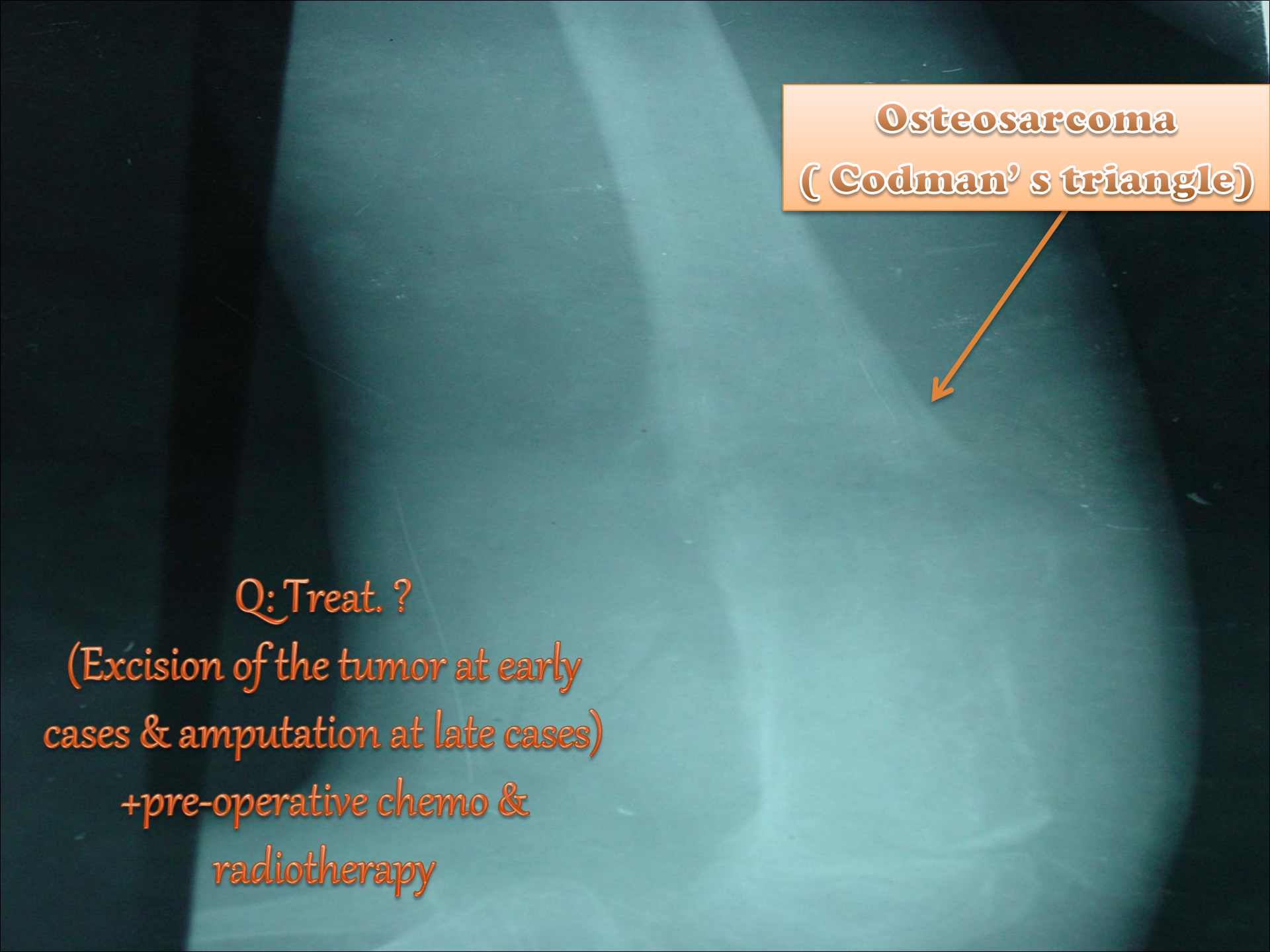
المثلث ده بقى اسمه
Codman’s Triangle

يبقى على طول دي اسمها
Osteo-sar-coma

العضمة =Osteo
صار عليها أو تكون عليها = Sar
كومة من الترسيب =Coma
اللي هيا
codman’s triangle




Osteosarcoma
(Wel mafrood en da el Codman' s triangle)
:D


Osteosarcoma
(Codman' s triangle)
Q: Treat. ?
(Excision of the tumor at early cases & amputation at late cases)
+pre-operative chemo & radiotherapy

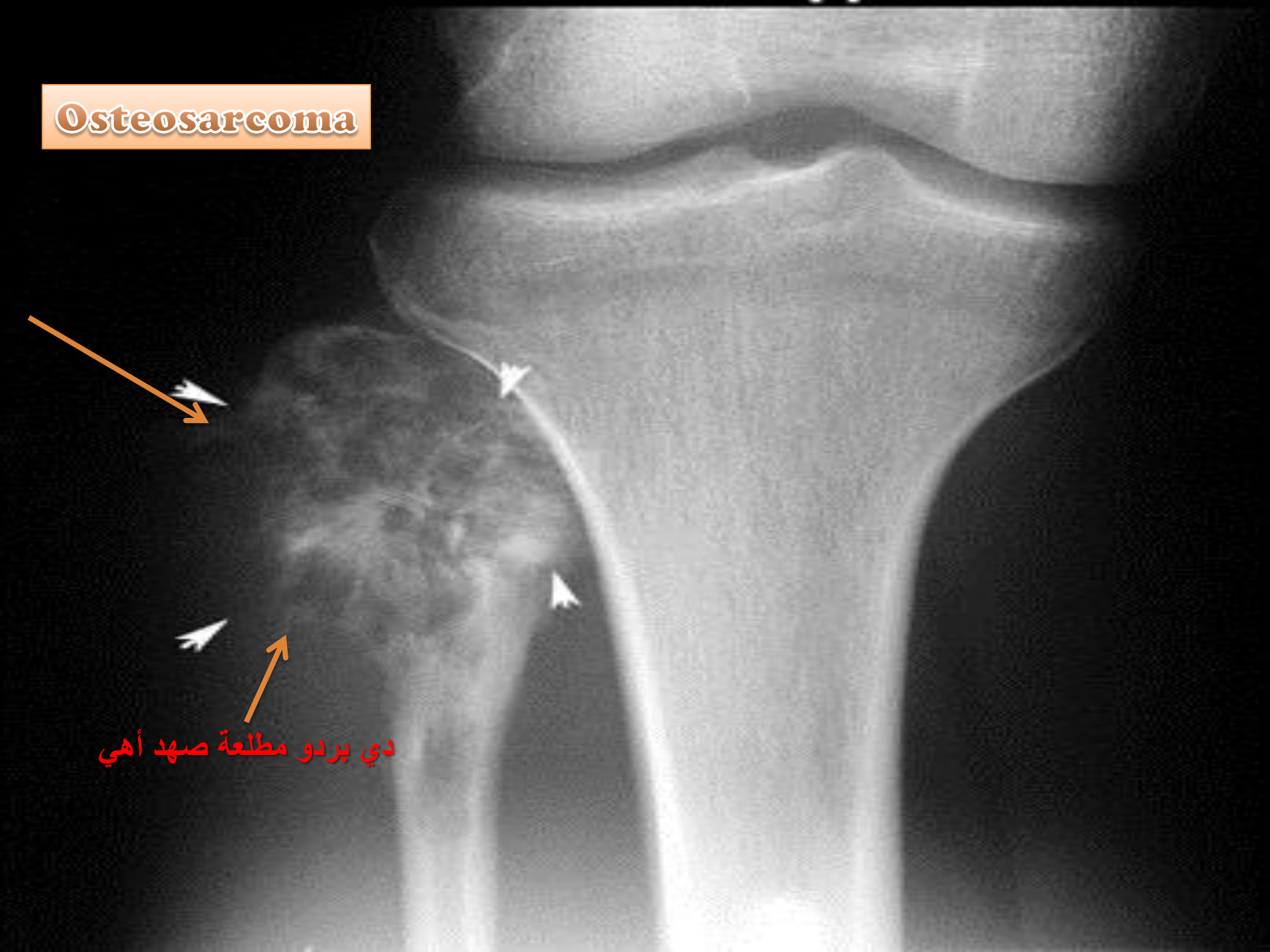
شايف الصهد اللي طالع من العضمة ده ؟؟

اهو ده بقى اسمه

Sunray appearance due to calcification of blood vessels

Osteosarcoma




Osteosarcoma
دي بردو مطلعة صهد أهي

معلومة بس على الماشي كدة عادي خالص انك تلاقي في الامتحان صور مش موجودة في فايل الكلية

احنا مثلا قعدنا نذاكر في الاكس راي المعفنة دي و في الآخر جابولنا حاجة في منتهى الوضوح زي الصورة دي



معلومة بس على الماشي كدة عادي خالص انك تلاقي في الامتحان صور مش موجودة في فايل الكلية

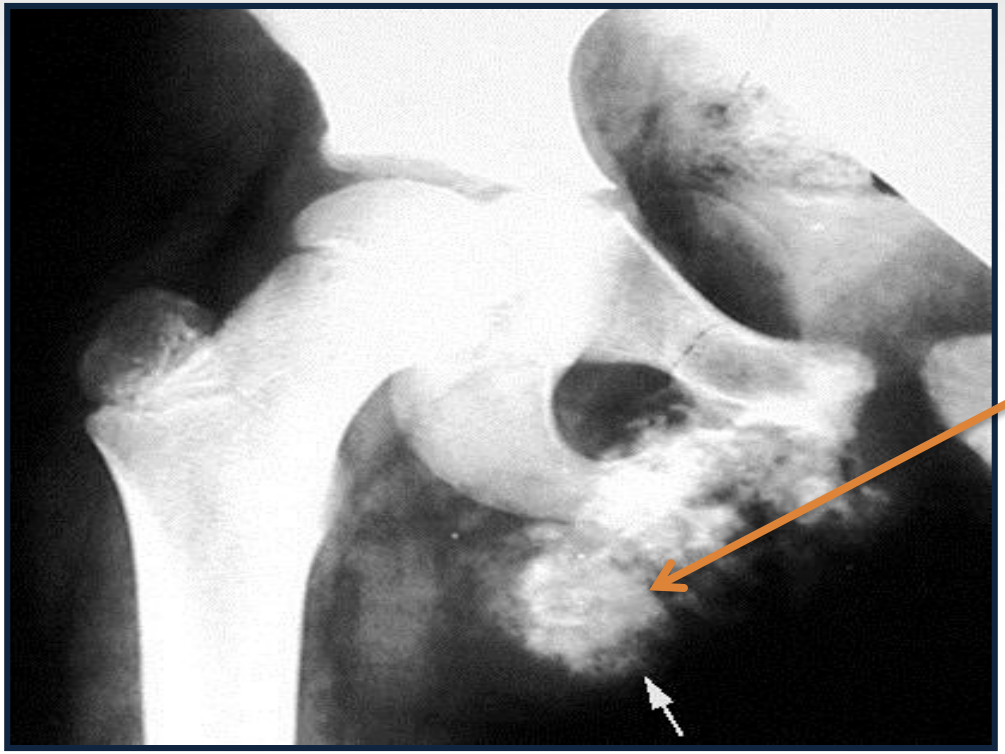
احنا مثلا قعدنا نذاكر في الاكس راي المعفنة دي و في الآخر جابولنا حاجة في منتهى الوضوح زي الصورة دي



اظن مافييش كودمان و صان راي اوضح من كدة يعني

ف ماحدش يقلق انه يتعرف على السلايد ان شاء الله


ايه دي ؟؟



اكدب عليك لو كنت شايف اي حاجة غير طبيعية ماعدا انه في

abnormal **C**alcification

يبقى دي صورة لل

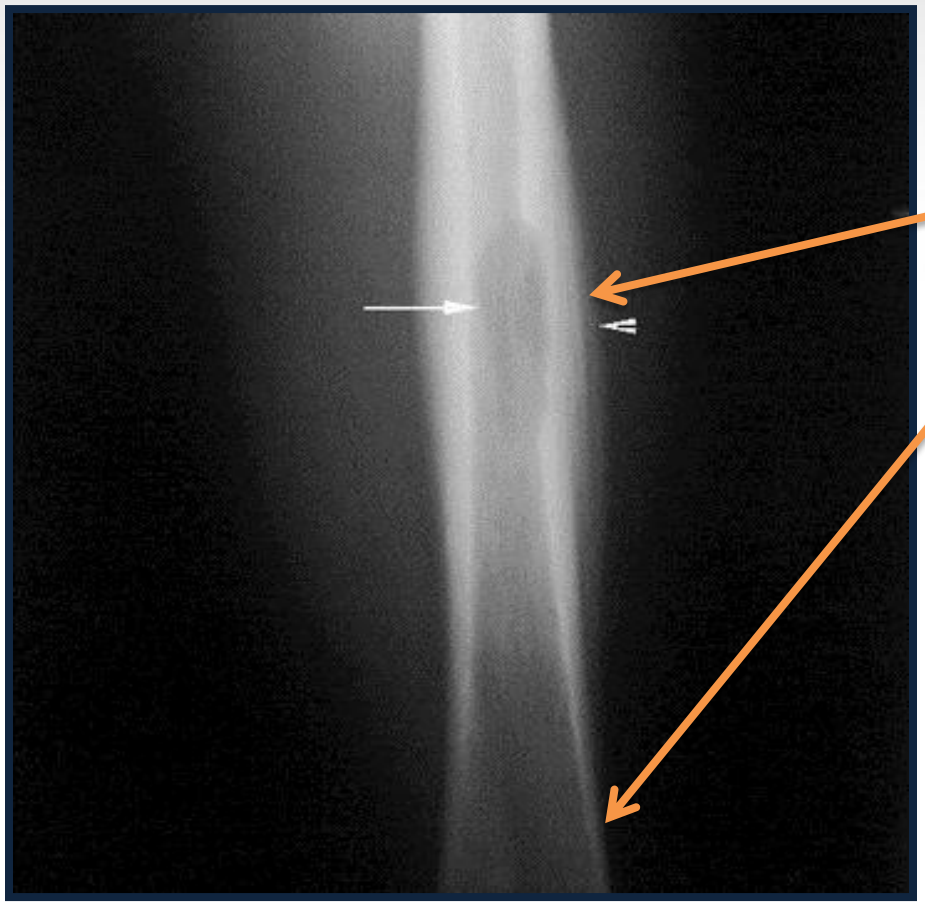
Chondrosarcoma




Chondrosarcoma
(Mottled calcification)
Q: Treat. ?
(early >> local resection)
(Late >> amputation)



ايه دي ؟؟



واخد بالك هنا في ايه ؟
القشرة البيضة تخنت اوييي ... قارن كدة





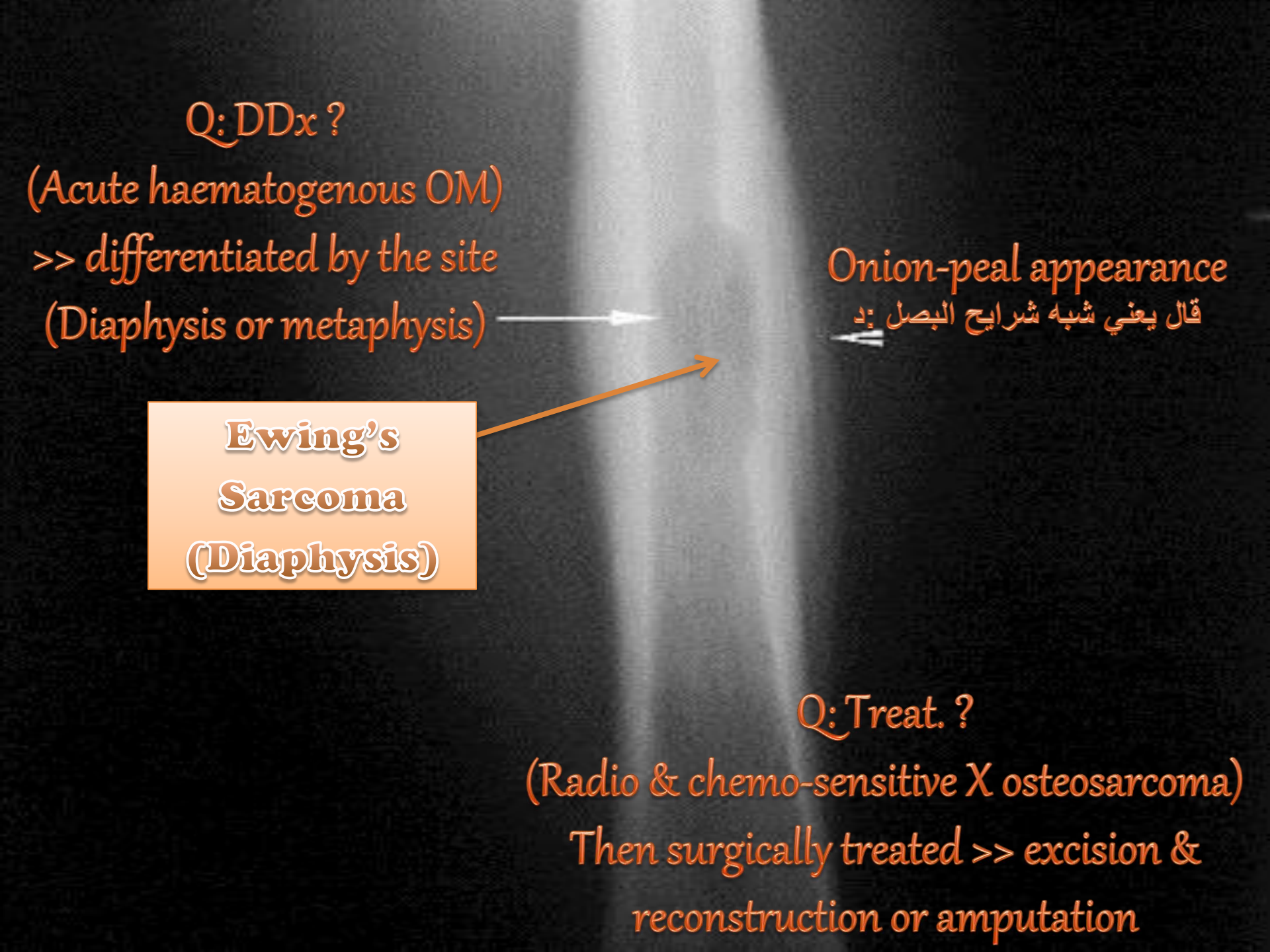
واخد بالك هنا في ايه ؟
القشرة البيضة تخنت اوييي ... قارن كدة

ويكأن العضمة طلعلها أجنحة D:
احييه دول أجنحة بجد D:

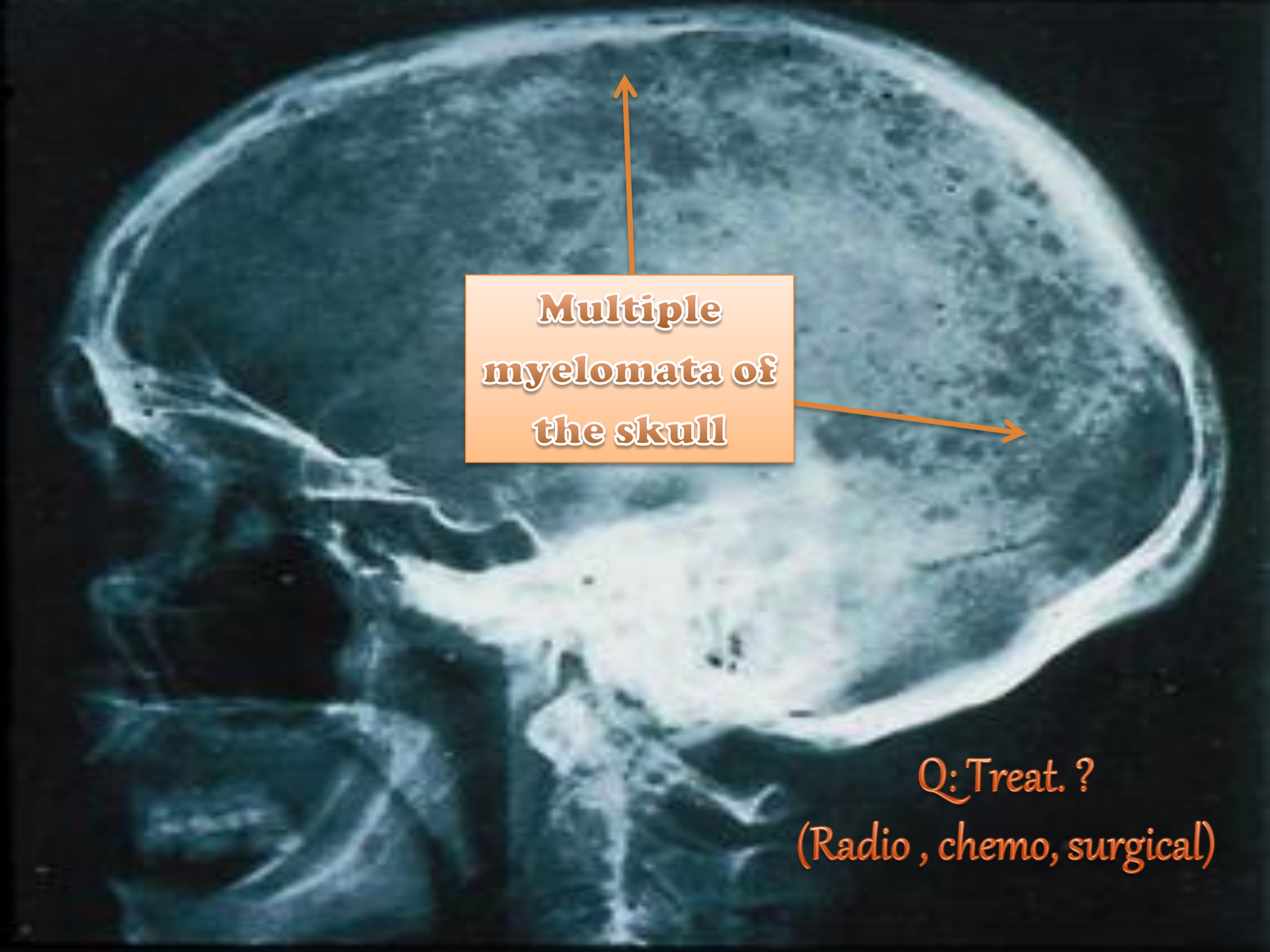
و عشان كدة سموها Wing
قصدي Ewing
D:

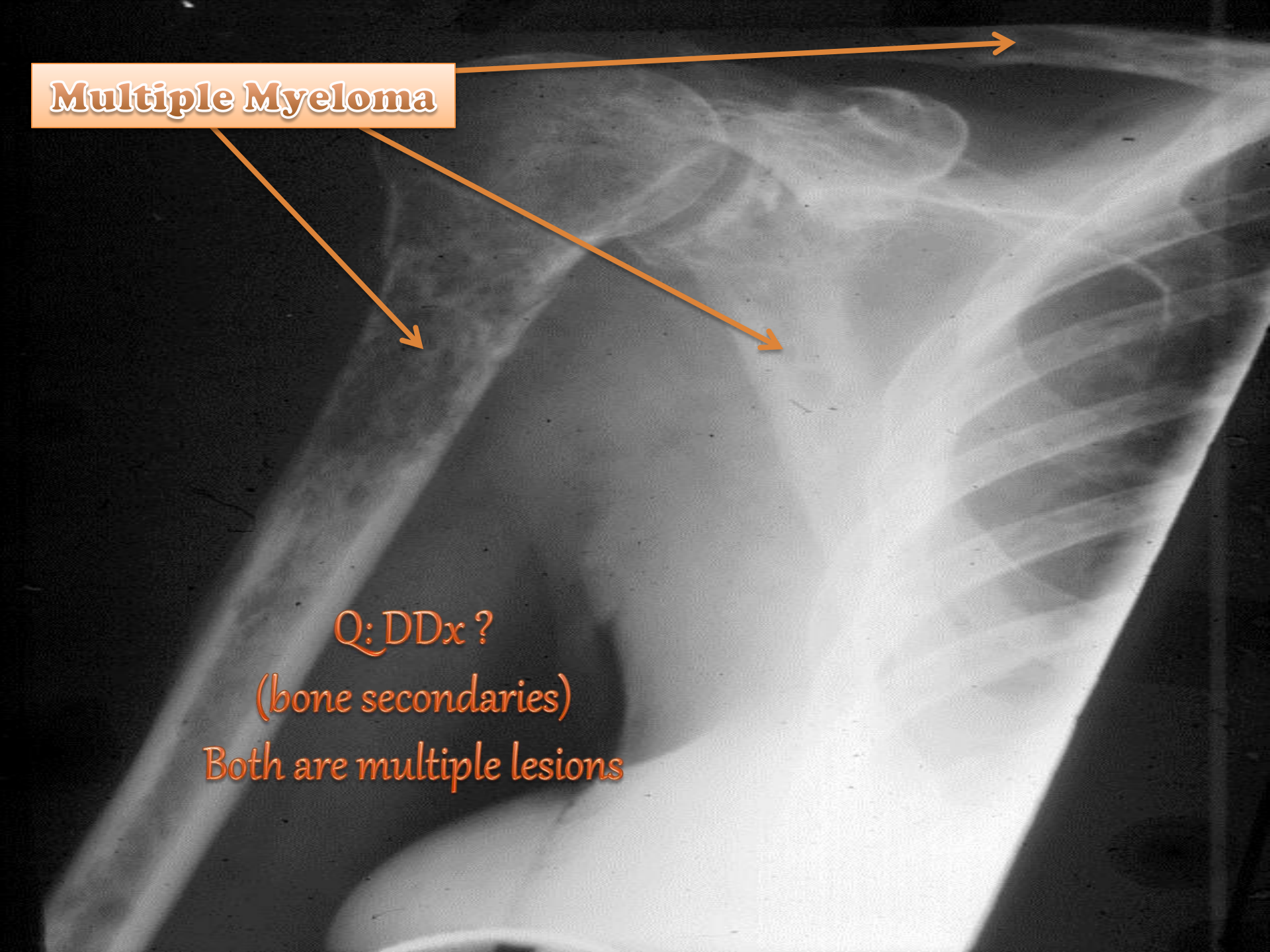
يبقى السبوت دي Ewing’s Sarcoma

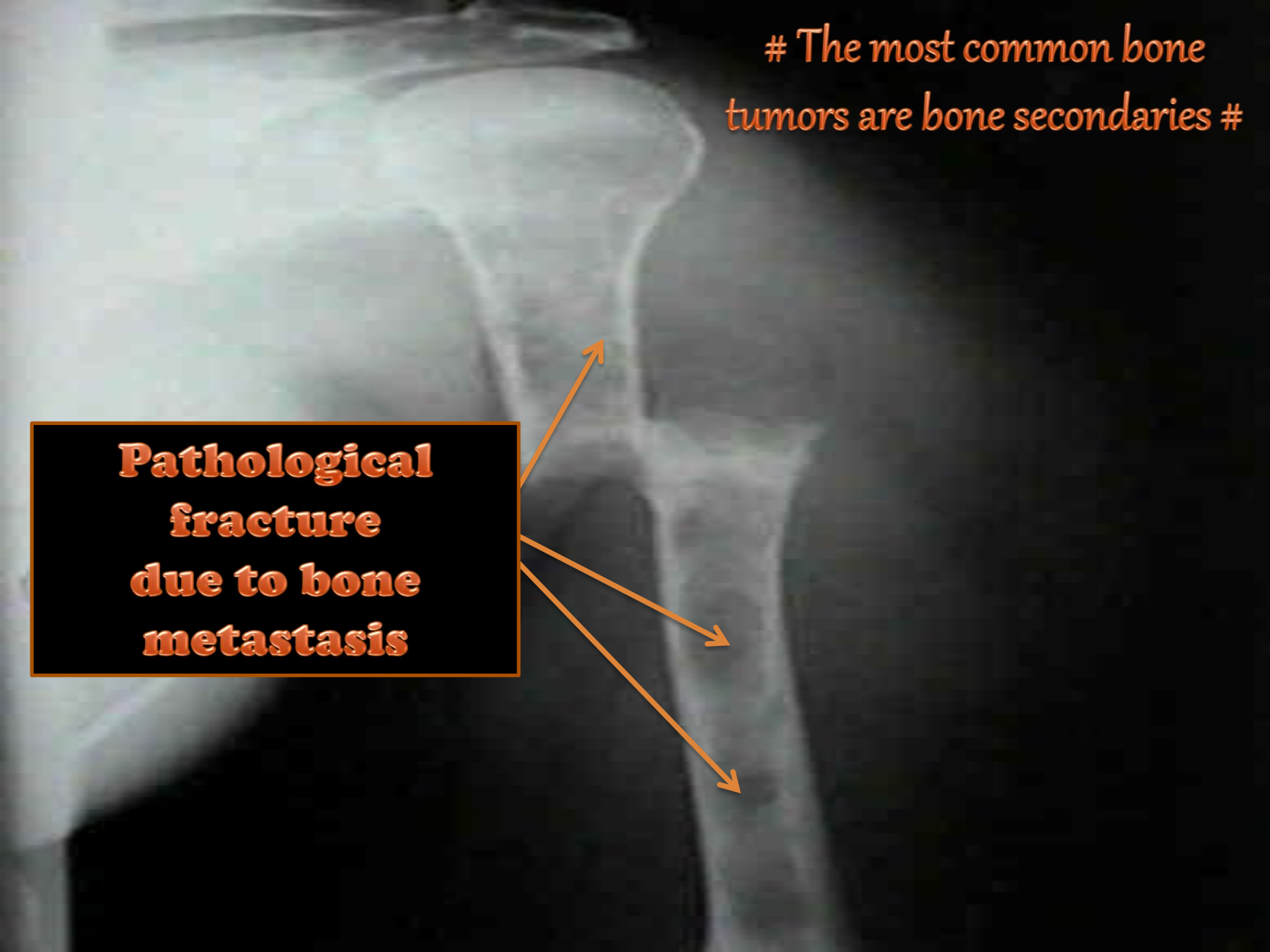



Q: DDx ?
(Acute haematogenous OM)
>> differentiated by the site
(Diaphysis or metaphysis)
Onion-peal appearance
قال يعني شبه شرايح البصل :د
Ewing's Sarcoma (Diaphysis)
Q: Treat. ?
(Radio & chemo-sensitive X osteosarcoma)
Then surgically treated >> excision & reconstruction or amputation


ايه دي ؟؟


Multiple myelomata of the skull
Q: Treat. ?
(Radio , chemo, surgical)

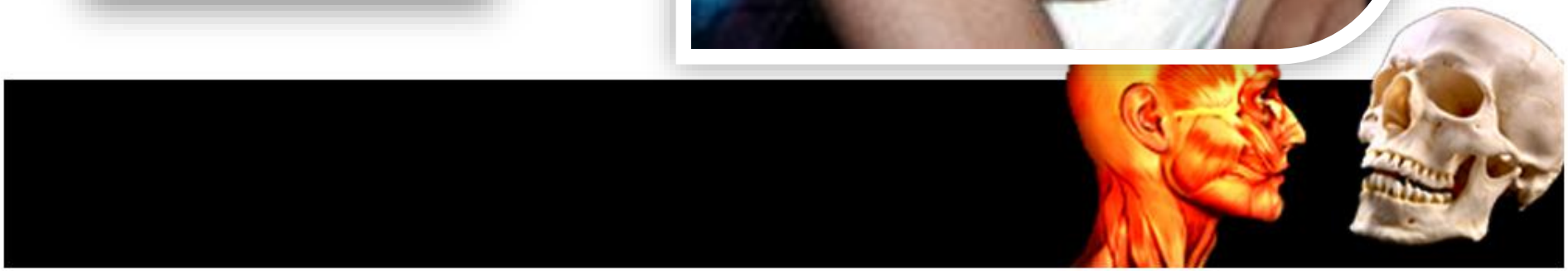

Multiple Myeloma
Q: DDx ?
(bone secondaries)
Both are multiple lesions


The most common bone tumors are bone secondaries
Pathological fracture due to bone metastasis

Erb's palsy







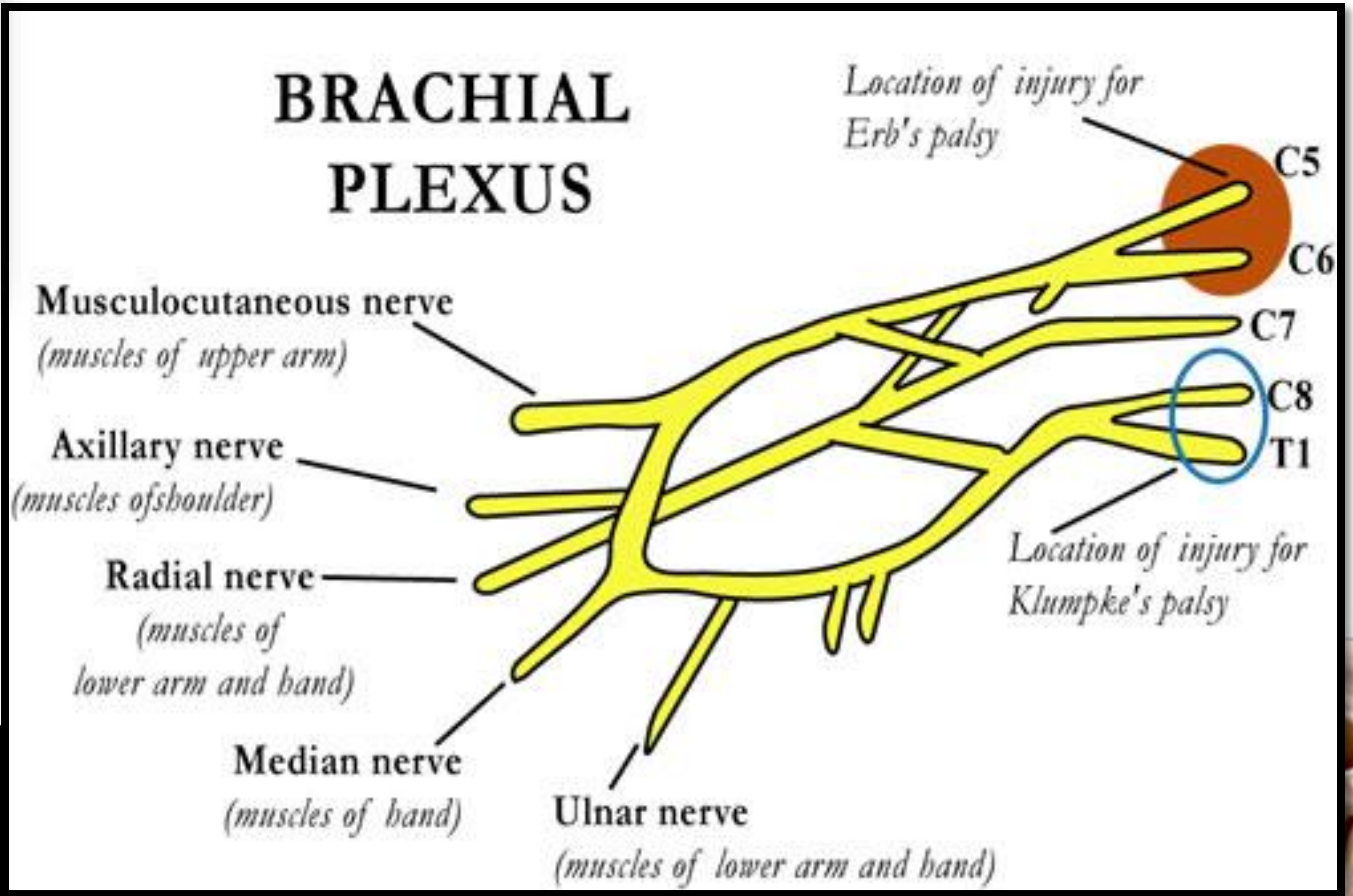


Erb’s palsy

اعرف عنه كلمتين بالظبط

it is due to injury to upper trunk of brachial plexus

it causes policeman tip position



In the memory of Dr. Mohammed El Ghandour





Done By

Hams Fekrey & Marwan El Sokkary

فريق المحاظ



Thank you

